

SYMPOSIUM ON HIDRADENITIS SUPPURATIVA ADVANCES

PROGRAM







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WELCOME FROM THE CO-CHAIRS

Welcome to the 9th Annual Symposium on Hidradenitis Suppurativa (HS) Advances, proudly co-hosted by the Hidradenitis Suppurativa Foundation (HSF) and the Canadian Hidradenitis Suppurativa Foundation (CHSF).

This year, we're thrilled to gather in the vibrant city of Austin, Texas, for another innovative and enlightening experience. We have once again crafted a program that brings together the brightest minds in HS research and clinical practice, offering you the latest insights and advancements in HS care. Our symposium provides ample opportunity for networking, in-depth plenary sessions, cutting-edge poster presentations, and engaging discussions with HS industry partners.

Some of the key sessions this year include explorations into the pathogenesis of HS, the role of nutrition and inflammation, updates on HS comorbidities, and exciting new research on combination therapies. We are particularly excited about our panel discussions, including the ever-popular Complex Medical Management Panel and debates on the future of HS treatment.

Whether you are attending to gain knowledge, share research, or collaborate with peers, we are confident this year's event will be both impactful and inspiring. We look forward to connecting with you as we continue our mission to improve the lives of those affected by HS.

Sincerely,



Stephanie Goldberg, MD Chair, SHSA Planning Committee Mary Washington Healthcare Fredericksburg, VA, USA

Vincent Piguet, MD, PhD, FRCP (London)

Vice-Chair, SHSA Planning Committee University of Toronto; Women's College Hospital Toronto, ON, Canada

PLANNING COMMITTEE

Co-Chairs:

Stephanie Goldberg, MD

Vice President Graduate Medical Education, General Surgeon Mary Washington Healthcare, Fredericksburg, VA, USA

Vincent Piguet, MD, PhD, FRCP (London)

Professor and Division Director, Dermatology, University of Toronto and Division Head, Dermatology, Women's College Hospital, Toronto, ON, Canada

Committee Members:

Steven Daveluy, MD, FAAD

Associate Professor and Program Director, Dept of Dermatology, Wayne State University, Detroit, MI, USA

Athena Gierbolini

Patient Lead, Hope for HS, Hershey, PA, USA

Ralph George, MD, FRCS

Associate Professor, General Surgery, University of Toronto, Toronto, ON, Canada

Brent Hazelett, MPA, CAE

Chief Executive Officer, HS Foundation, Apex, NC, USA

Jennifer Hsiao, MD

Associate Clinical Professor, University of Southern California, Los Angeles, CA, USA

Jillian Ondreyka, MPH, RDN, IFNCP, IBCLC, CLT

Registered Dietician, Embrace Health Nutrition, LLC, Ypsilanti, MI, USA

Susan Poelman, MSc, MD, FRCPC

Clinical Associate Professor, University of Calgary Cumming School of Medicine, Calgary, AB, Canada

Martina Porter, MD

Associate Director of Dermatology Research, Department of Dermatology, Beth Israel Deaconess Medical Center, Boston, MA, USA

Se Mang Wong, MD, FRCPC

Clinical Associate Professor, UBC Department of Dermatology and Skin Science, Vancouver, BC, Canada

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HS Ireland





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CONTINUING MEDICAL EDUCATION

This activity has been planned and implemented in accordance with the accreditation requirements and policies of the Accreditation Council for Continuing Medical Education through the joint providership of the Pennsylvania Medical Society and the Hidradenitis Suppurativa Foundation. The Pennsylvania Medical Society is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians.

The Pennsylvania Medical Society designates this live activity for a maximum of **13.5 AMA PRA Category 1 Credit(s)**[™]. Physician should only claim credit commensurate with the extent of their participation in the educational activity.

Canadian Royal College—International CPD/MOC Recognition

In support of global learning, the Royal College has several recognition agreements covering continuing professional development (CPD) and Maintenance of Certification Program (MOC) credits. These permit international education activities to be recorded within the MOC Program.

Credits for these CPD activities can be converted between the Royal College and international CPD accreditation systems, allowing physicians to record credits for their global CPD learning. The requirements and accreditation statement for each agreement are listed below. The Royal College credit recognition for group learning completed outside of Canada includes all face-to-face conferences or courses, and all synchronous Online conferences or courses (such as live webcasts and live webinars that allow participants to ask questions to the faculty). The Royal College will recognize the number of hours that learners participate as MOC Program Section 1 accredited group learning credits for group learning activities developed by a university, academy, college, academic institution, or physician organization.

A link to claim your CME will be sent out following the meeting.

HOTEL MAP

LEVEL 3



LEVEL 4



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Session times are noted in Central Standard Time.

All CME sessions are located in the Waller CD Ballroom unless otherwise noted.

Friday, November 1	
12:00 pm – 1:00 pm	Visit with Sponsors/Exhibitors & Poster Viewing Waller AB/Foyer
12:00 pm – 1:00 pm Non-CME	Medical Student & Resident Networking LunchSponsored by UCBWaller EF
1:00 pm – 1:05 pm	Welcome Stephanie Goldberg, MD
1:05 pm – 1:15 pm	Finding Purpose in HS Jennifer Hsiao, MD • Ramon Rojas, Patient Moderated by Drs. Stephanie Goldberg and Hadar Lev-Tov
1:15 pm – 1:40 pm	Plenary 1 - Where We've Been: Advancements in HS Care and Research John Ingram, MD Moderated by Drs. Stephanie Goldberg and Hadar Lev-Tov
1:40 pm – 2:05 pm	Plenary 2 - HS Pathogenesis Sarah Whitley, MD Moderated by Drs. Stephanie Goldberg and Hadar Lev-Tov
2:05 pm – 2:15 pm	Q&A Moderated by Drs. Stephanie Goldberg and Hadar Lev-Tov
2:15 pm –3:29 pm	Oral Abstract Presentations with Q&A Moderated by Drs. Stephanie Goldberg and Hadar Lev-Tov
3:29 pm – 3:39 pm	Point Counterpoint Debate - HS as Innate vs Adaptive Disease John Frew, MBBS • David Croitoru, MD Moderated by Drs. Stephanie Goldberg and Hadar Lev-Tov
3:39 pm – 4:00 pm	Visit with Sponsors/Exhibitors & Poster Viewing Waller AB/Foyer
4:00 pm – 4:52 pm	Oral Abstract Presentations with Q&A Moderated by Drs. Ralph George and Simon Wong
4:52 pm – 5:02 pm	How HS Foundation and Canadian HS Foundation Empower Change: A Brief Dive into Their Impact and Initiatives Hadar Lev-Tov, MD • Helene Veillette, MD Moderated by Drs. Ralph George and Simon Wong
5:02 pm – 5:50 pm	Complex Medical Management Panel Noah Goldfarb, MD • Alexandra Charrow, MD • Iltefat Hamzavi, MD • Vincent Piguet, MD • Robert Micheletti, MD Moderated by Drs. Ralph George and Simon Wong
5:50 pm – 6:00 pm	Q&A Moderated by Drs. Ralph George and Simon Wong



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All CME sessions are located in the Waller CD Ballroom unless otherwise noted.

Friday, November 1

6:00 pm – 7:30 pm Non-CME	Welcome Reception Waller AB/Foyer	Sponsored by MoonLake Immunotherapeutics
7:00 pm – 9:00 pm	UCB Advisory Board (Invitation Only)	
Non-CME	401	
7:00 pm – 9:00 pm	Incyte Corporation Patient Panel (Invitation Only)	
Non-CME	402	

Saturday, November 2		
7:15 am – 7:45 am	Hearts & Soles for HS Walk Meet in Marriott lobby	
7:30 am – 8:30 am	Visit with Sponsors/Exhibitors & Poster Viewing Waller AB/Foyer	
7:30 am – 8:30 am	Breakfast Waller EF	
8:30 am – 8:35 am	Introduction Stephanie Goldberg, MD	
8:35 am – 9:05 am	Plenary 3 - Hidradenitis Suppurativa, Diet and Inflammatio Joi Lenczowski, MD Moderated by Athena Gierbolini and Jillian Ondreyka	'n
9:05 am – 9:15 am	Q&A Moderated by Athena Gierbolini and Jillian Ondreyka	
9:15 am – 10:13 am	Oral Abstract Presentations with Q&A Moderated by Athena Gierbolini and Jillian Ondreyka	
10:13 am – 10:23 am	Point Counterpoint Debate - Efficacy of Antibiotics in HS Vivian Shi, MD • Martin Okun, MD Moderated by Athena Gierbolini and Jillian Ondreyka	
10:23 am – 10:38 am	Presentation of the Annual SHSA Award	Non-CME
10:38 am – 11:00 am	Visit with Sponsors/Exhibitors & Poster Viewing Waller AB/Foyer	
11:00 am – 11:10 am	Update on HS Comorbidities Raed Alhusayen, MD Moderated by Drs. Steven Daveluy and Jennifer Hsiao	
11:10 am – 12:00 pm	Oral Abstract Presentations with Q&A Moderated by Drs. Steven Daveluy and Jennifer Hsiao	

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Session times are noted in Central Standard Time.

All CME sessions are located in the Waller CD Ballroom unless otherwise noted.

Saturday, November 2		
12:00 pm – 1:30 pm	Lunch Waller EF	
12:00 pm – 1:30 pm	Visit with Sponsors/Exhibitors & Poster Viewing Waller AB/Foyer	
12:00 pm – 1:30 pm Non-CME	Demystifying Clinical Trials (Invitation Only) Hosted by Novartis Pharmaceuticals Corporation 402	
12:30 pm – 1:30 pm	Procedural Workshop (Ticketed Session) Steven Daveluy, MD • Stephanie Goldberg, MD • Ralph George, MD Drew Saylor, MD 302	
1:30 pm – 1:40 pm	How Patient Organizations Can Partner with Providers Jillian Ondreyka, RD • Brindley Brooks Moderated by Drs. Martina Porter and Simon Wong	
1:40 pm – 2:10 pm	Plenary 4 - Genetics of HS Christopher Sayed, MD Moderated by Drs. Martina Porter and Simon WongHamzavi Lecture	
2:10 pm – 2:20 pm	Q&A Moderated by Drs. Martina Porter and Simon Wong	
2:20 pm – 3:18 pm	Oral Abstract Presentations with Q&A Moderated by Drs. Martina Porter and Simon Wong	
3:18 pm – 3:28 pm	Point Counterpoint Debate - Serial Staged Excisions vs Wide Excisions Falk Bechara, MD • Vanessa Pena-Robichaux, MD Moderated by Drs. Martina Porter and Simon Wong	
3:28 pm – 3:50 pm	Visit with Sponsors/Exhibitors & Poster Viewing Waller AB/Foyer	
3:50 pm – 5:00 pm	Wound Care and Nutritional Strategies in the Management of HS Afsaneh Alavi, MD • Joi Lenczowski, MD • Brindley Brooks • Jillian Ondreyka, RD Moderated by Dr. Steven Daveluy	
5:00 pm – 6:00 pm Non-CME	Networking ReceptionSponsored by UCBWaller AB/Foyer	
5:30 pm – 7:30 pm Non-CME	Incyte Corporation Advisory Board (Invitation Only) 402	



Please note that Daylight Saving Time ends at 2 AM on the final day of the conference, with clocks falling back one hour from Central Daylight Time to Central Standard Time.

All CME sessions are located in the Waller CD Ballroom unless otherwise noted.

Sunday, November	3
7:00 am – 9:00 am Non-CME	Novartis Pharmaceuticals Corporation Advisory Board (Invitation Only) 401
8:00 am – 9:00 am	Visit with Sponsors/Exhibitors & Poster Viewing Waller AB/Foyer
8:00 am – 9:00 am	Breakfast Waller EF
8:15 am – 9:00 am Non-CME	The Latest Approved Indication for COSENTYX® (secukinumab) Jackie Beiler DMSc., MPAS, PAC Sponsored by Novartis Pharmaceuticals Corporation Waller EF
9:00 am – 9:30 am	Plenary 5 - Is Ertapenem a Wonder Drug for HS? Barry Resnik, MD Moderated by Drs. Vincent Piguet and Ralph George
9:30 am – 9:40 am	Q&A Moderated by Drs. Vincent Piguet and Ralph George
9:40 am - 10:38 am	Oral Abstract Presentations with Q&A Moderated by Drs. Vincent Piguet and Ralph George
10:38 am – 10:48 am	Point Counterpoint Debate - Anti TNF vs Anti IL 17 as First Line Drug Martina Porter, MD • Se Mang "Simon" Wong, MD Moderated by Drs. Vincent Piguet and Ralph George
10:48 am – 11:10 am	Visit with Sponsors/Exhibitors & Poster Viewing Waller AB/Foyer
11:10 am – 11:40 am	Plenary 6 – The Future of HS Gregor Jemec, MD Moderated by Drs. Vincent Piguet and Ralph George
11:40 am – 11:45 am	Closing Remarks Vincent Piguet, MD
12:30 pm – 2:00 pm Non-CME	HS Foundation Board Meeting 401



Afsaneh Alavi, MD

Professor of Dermatology, Department of Dermatology, Mayo Clinic

Dr. Alavi is a Professor of Dermatology in Rochester, Minnesota, specializing in inflammatory disorders like psoriasis, hidradenitis suppurativa (HS), and pyoderma gangrenosum (PG). With expertise in neutrophilic inflammatory disorders and chronic wounds, she leads research in wound healing and HS and has been Principal Investigator in over 50 clinical trials. She is a recipient of multiple awards for her contributions to dermatology and education.

Talk Title: Wound Care and Nutritional Strategies in the Management of HS Date: Saturday, November 2 Time: 3:50 pm – 4:50 pm



Raed Alhusayen, MD, MSc, FRCPC, FAAD

Associate Professor, University of Toronto

Dr. Alhusayen is a Clinician Investigator and Associate Professor in the Division of Dermatology at the University of Toronto, as well as an Associate Scientist at Sunnybrook Research Institute. He serves as a Staff Physician at Sunnybrook Health Sciences Centre and Women's College Hospital, where he runs subspecialty HS clinics. Dr. Alhusayen's clinical research focuses on HS comorbidities, the efficacy of HS therapies, and clinical trials. A founding member and past president of the Canadian HS Foundation, he has published extensively and contributed to major HS guidelines.

Talk Title: Update on HS Comorbidities

Date: Saturday, November 2 **Time:** 11:00 am – 11:10 am



Falk Bechara, MD

Senior Physician, Department of Dermatology, Venereology and Allergology, Ruhr University Bochum, Katholisches Klinikum Bochum

Dr. Bechara is the Head of Dermatologic Surgery and Senior Physician at the Ruhr-University Bochum, Germany. He founded the Hidradenitis Suppurativa/Acne Inversa Center in 2008, now one of the largest in Europe, and expanded it in 2020 into the International Center for Hidradenitis Suppurativa. Prof. Bechara is a former president of the German Society of Dermatologic Surgery and leads the university's Skin Cancer and Clinical Study Centers. He specializes in reconstructive dermatologic surgery and complex cases of hidradenitis suppurativa.

Talk Title: Point | Counterpoint Debate - Serial Staged Excisions vs Wide ExcisionsDate: Saturday, November 2Time: 3:18 pm - 3:28 pm

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Brindley Brooks

Founder & Director, HS Connect

Brindley Brooks, Founder and Director of HS Connect, has lived with Hidradenitis Suppurativa (HS) since age 11. After years of keeping her condition private and struggling with inadequate treatments, she found relief through surgery and began openly sharing her journey. Motivated by her experience and her daughter's early signs of HS, Brindley founded HS Connect to provide support, education, and resources for those affected by the disease. Her resilience and dedication to fostering community have helped countless individuals navigate the challenges of HS.

Talk Title: How Patient Organizations Can Partner with Providers Date: Saturday, November 2 Time: 1:30 pm – 1:40 pm Talk Title: Wound Care and Nutritional Strategies in the Management of HS Date: Saturday, November 2 Time: 3:50 pm – 4:50 pm



Alexandra Charrow, MD, MBE

Assistant Professor, Brigham and Women's Hospital, Director, Hidradenitis Clinics

Dr. Charrow is an Assistant Professor of Dermatology at the Brigham and Women's Hospital where she directs the Hidradenitis Suppurativa and Inflammatory Bowel Disease and Neutrophilic Dermatoses clinic. She completed a combined Internal Medicine and Dermatology residency at the Brigham and Women's Hospital and Harvard Combined Dermatology Program. Her clinical research focuses on social determinants of health in Hidradenitis, ED utilization in Hidradenitis, and Cutaneous Crohn's Disease treatment and management. She received a Masters in Bioethics from the University of Pennsylvania School of Medicine concurrent with her MD. She co-directs the IDD Course at Harvard Medical School and has won awards for her education of residents and students.

Talk Title: Complex Medical Management Panel Date: Friday, November 1 Time: 5:02 pm – 5:50 pm



David Croitoru, MD

Physician, University of Toronto; Clinical Investigator, University Health Network

Dr. Croitoru is a full-time Clinician Investigator at University Health Network, Toronto, Canada, with interest in autoimmune and inflammatory dermatoses as well as cutaneous manifestations of chemotherapy. He is cross appointed to Women's College Hospital where he practices Wound Care, and is the medical lead of specialized Pyoderma Gangrenosum and Hidradenitis Suppurativa surgery clinics. Dr. Croitoru has developed the largest cohort of patients in Canada with Pyoderma Gangrenosum. To further resident engagement with research he is the co-chair of CIHR-funded SKiN Canada's trainee development committee as well as SPoT (Skin Pathophysiology Therapeutics).

Talk Title: Point | Counterpoint Debate - HS as Innate vs Adaptive Disease

 Date: Friday, November 1

Time: 3:29 pm – 3:39 pm



Steven Daveluy, MD, FAAD

Dermatologist, Wayne Health Dermatology

Dr. Daveluy is an Associate Professor and Program Director at Wayne State University in Detroit, Michigan, with expertise in teledermatology, noninvasive skin imaging, skin of color, integrative dermatology, and complex medical conditions such as hidradenitis suppurativa (HS). In addition to his academic role, Dr. Daveluy serves on the Board of Directors for the HS Foundation and contributes to multiple committees, furthering advancements in HS care and research.

Talk Title: Procedural Workshop Date: Saturday, November 2 Time: 12:30 pm – 1:30 pm Talk Title: Wound Care and Nutritional Strategies in the Management of HS Date: Saturday, November 2 Time: 3:50 pm – 4:50 pm



John Frew, MBBS, PhD

Clinical Dermatologist, Director of Research, The Skin Hospital; Associate Professor of Dermatology, University of New South Wales

Dr. Frew is a clinical dermatologist and Director of Research at The Skin Hospital in Sydney, Australia. He is a conjoint associate professor of dermatology at the University of New South Wales and is the current editor in chief of the Australasian Journal of Dermatology. He currently holds a clinical appointment at Liverpool Hospital in Sydney, Australia and is Head of the Laboratory of Translational Cutaneous Medicine at the Ingham Institute for Applied Medical Research. A/Prof Frew has authored over 150 peer-reviewed articles and has a special interest in the pathogenesis and molecular mechanisms of inflammatory dermatoses including Hidradenitis Suppurativa.

Talk Title: Point | Counterpoint Debate - HS as Innate vs Adaptive Disease Date: Friday, November 1 Time: 3:29 pm – 3:39 pm



Ralph George, MD, FRCS

Associate Professor, Department of Surgery, University of Toronto

Dr. George is an Associate Professor of General Surgery at the University of Toronto and Medical Director of the CIBC Breast Centre at St. Michael's Hospital. He completed fellowships in Endoscopy and Surgical Oncology at Roswell Park Cancer Institute. Dr. George is an executive member of the Canadian Hidradenitis Suppurativa Foundation and has held leadership roles including past President of the Canadian Association of General Surgeons. He co-chaired the 2022 Symposium on Hidradenitis Suppurativa Advances.

Talk Title: Procedural Workshop Date: Saturday, November 2 Time: 12:30 pm – 1:30 pm



Stephanie Goldberg, MD, FACS

Vice President Graduate Medical Education; General Surgeon, Mary Washington Healthcare

Dr. Goldberg is Vice President for Graduate Medical Education and a surgeon at Mary Washington Healthcare in Fredericksburg, VA. She has led the transformation of the health system into an academic center with medical education programs. Board certified in General Surgery and Surgical Critical Care, Dr. Goldberg has a special interest in complex wound healing and Hidradenitis Suppurativa (HS). She is an international expert in HS, serves on the Board of the HS Foundation, and is President of the HS Coalition for Public Policy & Advocacy.

Talk Title: Procedural Workshop Date: Saturday, November 2 Time: 12:30 pm – 1:30 pm



Noah Goldfarb, MD, FAAD

Assistant Professor, Departments of Medicine and Dermatology, University of Minnesota

Dr. Goldfarb is an assistant professor in the departments of medicine and dermatology at the University of Minnesota and staff physician at the Minneapolis VA Health Care System. Dr. Goldarb is passionate about caring for persons with hidradenitis suppurativa (HS). He runs the HS specialty clinic at the University of Minnesota, where he also runs numerous industry-sponsored and investigator-initiated research projects related to HS. In addition, Dr. Goldfarb is also currently co-program director of the combined internal medicine and dermatology residency program and skin pathophysiology course director for second-year medical students at the University of Minnesota.

Talk Title: Complex Medical Management Panel Date: Friday, November 1 Time: 5:02 pm – 5:50 pm



Iltefat Hamzavi, MD, FAAD

Dermatologist, Hamzavi Dermatology, Henry Ford Health Multicultural Dermatology Center, Henry W. Lim Division of Photobiology and Photomedicine

Dr. Hamzavi is a senior staff physician at Henry Ford Health, where he leads the Multicultural Dermatology Center and contributes to the Henry W. Lim Division of Photobiology and Photomedicine. A prolific researcher, he has co-authored over 300 peer-reviewed papers. He has also served as Co-Chair of the Global Vitiligo Foundation and President of the Hidradenitis Suppurativa Foundation.

Talk Title: Complex Medical Management Panel Date: Friday, November 1 Time: 5:02 pm – 5:50 pm





Jennifer Hsiao, MD

Associate Professor of Dermatology, University of Southern California

Dr. Hsiao is an Associate Professor of Dermatology at the University of Southern California (USC). She is dedicated to improving the medical care and quality of life for patients with hidradenitis suppurativa (HS) through direct patient interaction as well as research. She is also interested in management of skin conditions in pregnant and breastfeeding patients. In addition to her clinical work, she is also passionate about medical education and raising HS awareness.

Talk Title: Finding Purpose in HS Date: Friday, November 1 Time: 1:05 pm – 1:15 pm



John Ingram, MD, PhD Professor, Cardiff University

Dr. Ingram runs a hidradenitis suppurativa (HS) multidisciplinary team clinic in Cardiff, UK, integrating medical, surgical and biologic treatments. He led the 2018 British Association of Dermatologists (BAD) guideline development group for HS, as well as the Cochrane Review of 'Interventions for HS' and is a founding member of HISTORIC, the HIdradenitis SuppuraTiva cORe outcomes set International Collaboration. He is Chief Investigator of H-STRONG, the UK-Irish Hidradenitis Suppurativa Treatment Registry Study. Dr Ingram is immediate past Editor-in-Chief of the British Journal of Dermatology (BJD).

Talk Title:Plenary 1 - Where We've Been: Advancements in HS Care and ResearchDate:Friday, November 1

Time: 1:15 pm – 1:40 pm



Gregor Jemec, MD, DMSc

Professor, University of Copenhagen

Dr. Jemec is the Founding Chairman and current Head of Research at the Department of Dermatology, Zealand University Hospital, as well as a Professor of Dermatology at the Health Sciences Faculty, University of Copenhagen, Denmark. He also holds an Honorary Professorship at the Health Sciences Faculty, University of Ljubljana, Slovenia. Dr. Jemec's academic interests are broad, with a focus on Hidradenitis Suppurativa (HS), where he leads a dedicated research group. His expertise also extends to Clinimetrics, Skin Imaging, Psychodermatology, Epidemiology, and General Medical Dermatology.

Talk Title: Plenary 6 - The Future of HS Date: Sunday, November 3 Time: 11:10 am - 11:40 am



Joi Lenczowski, MD

Dermatologist, Certified Culinary Medicine Specialist

Dr. Lenczowski earned her MD from Duke and completed dermatology training at Emory, along with molecular immunology research at the NIH. Certified in Culinary Medicine, she integrates nutrition into health management, particularly for conditions like Hidradenitis Suppurativa. Now retired from clinical practice, Dr. Lenczowski invests in and consults for tech companies focused on holistic, evidence-based healthcare, emphasizing lifestyle, nutrition, and patient support networks.

Talk Title: Plenary 3 - Hidradenitis Suppurativa, Diet and Inflammation Date: Saturday, November 2 Time: 8:35 am – 9:05 am Talk Title: Wound Care and Nutritional Strategies in the Management of HS Date: Saturday, November 2

Time: 3:50 pm – 4:50 pm



Hadar Lev-Tov, MD

Associate Professor, University of Miami Miller School of Medicine

Dr. Lev-Tov is an Associate Professor in the Dr. Phillip Frost Department of Dermatology and Cutaneous Surgery at the University of Miami Miller School of Medicine and serves as the current president of the HS Foundation. A boardcertified dermatologist, he has extensive clinical expertise in conditions like Hidradenitis Suppurativa, psoriasis, and wound healing. Dr. Lev-Tov completed his dermatology residency at Albert Einstein College of Medicine and holds a Master of Applied Science in Clinical Research from UC Davis. He is dedicated to improving patient outcomes by connecting with their experiences and perceptions of health.

Talk Title: How HS Foundation and Canadian HS Foundation Empower Change: A Brief Dive into Their Impact and Initiatives Date: Friday, November 1

Time: 4:52 pm - 5:02 pm



Robert Micheletti, MD

Chief of Hospital Dermatology, Penn Medicine

Dr. Micheletti is a graduate of Stanford University and Duke University School of Medicine. He completed a combined residency in internal medicine and dermatology at the University of Pennsylvania, where he is now Associate Professor of Dermatology and Medicine. He is the Chief of Hospital Dermatology at Penn as well as Chief of Dermatology at Pennsylvania Hospital. He also directs the Cutaneous Vasculitis Clinic in the Penn Vasculitis Center. He has clinical and research focuses in vasculitis, severe drug reactions, autoimmune blistering diseases, hidradenitis suppurativa, and other areas of complex medical dermatology. He is the recipient of teaching awards from medical students and housestaff, and in 2019 he was elected to the Academy of Master Clinicians at Penn Medicine.

Talk Title: Complex Medical Management Panel Date: Friday, November 1 Time: 5:02 pm – 5:50 pm



Martin Okun, MD, PhD

Clinician, Fort HealthCare

Dr. Okun earned his MD/PhD from Yeshiva University/Albert Einstein College of Medicine, specializing in molecular biology. After completing his dermatology residency at Washington University and a post-doctoral fellowship at the National Cancer Institute, he began his career at the FDA. He later joined Abbott Laboratories (now AbbVie), where he led the development of adalimumab for several dermatologic conditions, including the first FDA-approved treatment for hidradenitis suppurativa (HS). Since 2015, he has resumed dermatology practice in Fort Atkinson, Wisconsin, while continuing to support HS awareness and advocacy through the Hidradenitis Suppurativa Foundation.

Talk Title: Point | Counterpoint Debate - Efficacy of Antibiotics in HSDate: Saturday, November 2Time: 10:13 am - 10:23 am



Jillian Ondreyka, MPH, RDN, IFNCP, IBCLC, CLT

Registered Dietitian, Embrace Health Nutrition LLC

Jillian Ondreyka is a Registered Dietitian Nutritionist (RDN) with over 9 years of experience. As a person with Hidradenitis Suppurativa (HS), she began specializing in nutrition for HS in 2019. She holds a Master of Public Health from the University of Michigan and a Bachelor of Science in Dietetics from Eastern Michigan University. Jillian is also an Integrative and Functional Nutrition Certified Practitioner (IFNCP) and a Certified LEAP Therapist (CLT). In 2022, she began participating in dermatology research to evaluate the LEAP program's effectiveness for HS.

Talk Title: Wound Care and Nutritional Strategies in the Management of HS

Date: Saturday, November 2

Time: 3:50 pm – 4:50 pm



Vanessa Peña-Robichaux, MD

Assistant Professor, University of Texas Dell Medical School

Dr. Peña-Robichaux is a board-certified dermatologist, assistant professor in the Department of Internal Medicine at Dell Medical School in Austin, TX and the dermatology section chief at the Central Texas Veterans Healthcare System. She has clinical expertise in the medical and surgical treatment of hidradenitis suppurativa (HS) and is the director of the HS Clinic in Austin. In addition to her responsibilities as chief, she is also the residency site director at the VA, where she supervises resident training in general dermatology, surgery and teledermatology. She has authored numerous scientific articles in notable medical journals.

Talk Title: Point | Counterpoint Debate - Serial Staged Excisions vs Wide Excisions Date: Saturday, November 2 Time: 3:18 pm – 3:28 pm



Vincent Piguet, MD, PhD, FRCP, FCAHS, MAE

Department Division Director of Dermatology, Department of Medicine, University of Toronto; Division Head of Dermatology, Women's College Hospital, Toronto

Dr. Piguet is a dermatologist and immunologist with over 250 publications. He trained at the University of Geneva and completed research at the Salk Institute. He has held leadership positions at Cardiff University and the University of Toronto, where he is currently Division Director of Dermatology. His research focuses on HIV, psoriasis, and melanoma, and he has received numerous grants for his work. Professor Piguet is a Fellow of the Royal College of Physicians and the Canadian Academy of Health Sciences.

Talk Title: Complex Medical Management Panel

Date: Friday, November 1 **Time:** 5:02 pm – 5:50 pm



Martina Porter, MD

Vice Chair for Research, Department of Dermatology, Beth Israel Deaconess Medical Center & Harvard Medical School

Dr. Porter is the Director of the Clinical Laboratory for Epidemiology and Applied Research in Skin (CLEARS), Vice Chair for Research for the Department of Dermatology, and the Co-Leader of the Pathogens, Immunology, and Inflammation Translational Research Hub at Beth Israel Deaconess Medical Center. She is an Assistant Professor of Dermatology at Harvard Medical School. She specializes in treating immune-mediated dermatologic conditions, including Hidradenitis Suppurativa, Psoriasis, and Atopic Dermatitis, with biologics and small molecules, and leads both investigator-initiated and industry-sponsored clinical trials in these disease indications. Dr. Porter is also the Deputy Chair of the American Academy of Dermatology's Patient Safety and Quality Committee.

Talk Title: Point | Counterpoint Debate - Anti TNF vs Anti IL 17 as First Line Drug Date: Sunday, November 3 Time: 10:38 am – 10:48 am



Barry Resnik, MD, FAAD

Physician, Resnik Skin Institute

Dr. Resnik is the Medical Director at the Resnik Skin Institute in Miami, FL and is a Voluntary Clinical Professor in the Dr. Phillip Frost Department of Dermatology & Cutaneous Surgery at the University of Miami Miller School of Medicine. He graduated from Tulane University School of Medicine and completed his Internship in Internal Medicine and Residency in Dermatology and Cutaneous Surgery at the University of Miami/Jackson Memorial Hospital Medical Center. Dr. Resnik's private practice encompasses adult, pediatric and cosmetic dermatology and dermatologic surgery. He has special expertise in the medical and surgical treatment of Hidradenitis Suppurativa and other complex dermatologic diseases.

Talk Title: Plenary 5 - Is Ertapenem a Wonder Drug for HS?

Date: Sunday, November 3 Time: 9:00 am – 9:30 am



Christopher Sayed, MD

Professor of Dermatology; Director of UNC HS Clinic, UNC Department of Dermatology

Dr. Sayed is an Associate Professor of Dermatology practicing at the University of North Carolina at Chapel Hill. He has a special clinical interest in the medical and surgical management of hidradenitis suppurativa and is the Director of the HS clinic at UNC. He has performed clinical and basic science research in HS and other dermatologic conditions with more than 30 publications in medical literature. He serves as a directing member of the Hidradenitis Suppurativa Foundation and is medical lead of a local HS support group.

Talk Title: Plenary 4 - Genetics of HS Date: Saturday, November 2 Time: 1:40 pm - 2:10 pm





Drew Saylor, MD

Associate Professor of Dermatology; Chief of Mohs Surgery, University of California, San Francisco and the San Francisco VA Medical Center

Dr. Saylor trained at the University of California, San Francisco for residency and Mohs fellowship. She is a Mohs surgeon who also performs a wide variety of other dermatologic surgeries. She has a special focus in complex removal and reconstruction, surgical education, and outpatient interventions for HS.

Talk Title: Procedural Workshop Date: Saturday, November 2 Time: 12:30 pm – 1:30 pm

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Vivian Shi, MD

Professor, University of Washington

Dr. Shi is a Professor of Dermatology at the University of Washington, Seattle, where she directs the Clinical Trials Unit and the Hidradenitis Suppurativa Specialty Clinic. Her research focuses on complex inflammatory skin conditions, skin barrier repair, and transepidermal drug delivery. She has published over 200 peer-reviewed articles and edited textbooks on atopic dermatitis and hidradenitis suppurativa. Dr. Shi serves on the Executive Board of the Hidradenitis Suppurativa Foundation and the advisory board of the National Eczema Association.

 Talk Title:
 Point | Counterpoint Debate - Efficacy of Antibiotics in HS

Date: Saturday, November 2 Time: 10:13 am – 10:23 am



Helene Veillette, MD, FRCPC

Associate Clinical Professor, CHU de Quebec-Laval University

Dr. Veillette is a dermatologist and clinical associate professor at CHU de Québec-Université Laval, where she leads the dermatology division. She is a clinical researcher, president of the Canadian Hidradenitis Suppurativa Foundation, and manages the "BIDermato" website. With a focus on hidradenitis suppurativa, medical education, and challenging clinical cases, Dr. Veillette values the human aspect of dermatology and teamwork. She has held key roles and contributed to advancing her field throughout her career.

Talk Title: How HS Foundation and Canadian HS Foundation Empower Change: A Brief Dive into Their Impact and Initiatives

Date: Friday, November 1 **Time:** 4:52 pm – 5:02 pm



Sarah Whitley, MD, PhD

Assistant Professor, Department of Dermatology, University of Massachusetts T.H. Chan School of Medicine

Dr. Whitley is a physician-scientist focused on understanding skin disease mechanisms. She earned her MD and PhD in immunology from UAB and completed dermatology residency at the University of Pittsburgh. Her research has provided key insights into T helper cells and IL-23's role in psoriasis treatment. Dr. Whitley is now at UMass Chan Medical School, where she co-directs the HS Center. Her lab investigates dysregulated immunity in skin, aiming to develop better treatments for hidradenitis suppurativa and related conditions.

Talk Title: Plenary 2 - HS Pathogenesis Date: Friday, November 1 Time: 1:40 pm – 2:05 pm



Se Mang "Simon" Wong, MD, FRCPC

Clinical Associate Professor, The University of British Columbia

Dr. Wong is a medical surgical dermatologist in New Westminster, BC, Canada. He is a Clinical Associate Professor at the University of British Columbia in Vancouver, BC, Canada. He has been the Director of Undergraduate Education for the Department of Dermatology and Skin Science at UBC since 2012. He teaches both medical students and residents regularly. He is the co-director of a combined psychiatry and dermatology clinic at Mount St. Joseph's Hospital in Vancouver, BC. He is a board member of the Canadian Hidradenitis Suppurativa Foundation. He provides visiting consultation services to Whitehorse, Yukon.

Talk Title: Point | Counterpoint Debate - Anti TNF vs Anti IL 17 as First Line Drug Date: Sunday, November 3 Time: 10:38 am – 10:48 am



CONFLICT OF INTEREST DISCLOSURES

The following individuals in control of content for this activity have disclosed financial relationships with ineligible companies whose primary business is producing, marketing, selling, re-selling, or distributing healthcare products used by or on patients. All relevant financial relationships have been mitigated. All others involved in the planning or delivery of this activity have no financial relationships to disclose.

Name	Role	Conflict(s)
Raed Alhusayen, MD, MSc, FRCPC, FAAD	Faculty	Ad Board/Consultant: Abbvie, Amgen, Celltrion, Frsenius Kabi, Incyte, Novartis, Pfizer, Sandoz, UCB Clinical Trials: AbbVie, Incyte
Falk Bechara, MD	Faculty	Advisory Board, Clinical Trials and/or Speaker: AbbVie, AbbVie Deutschland GmbH & Co. KG, Acelyrin, Beiersdorf, Boehringer Ingelheim Pharma GmbH & Co. KG, Celltrion, Incyte, JanssenCilag GmbH, Merck, Mölnlycke, MoonLake, Novartis Pharma GmbH, Sitala, UCB Pharma, Dr. Wolff
Brindley Brooks	Faculty	Consultant: Acelyrin, Sanofi, UCB Speaker: UCB
Alexandra Charrow, MD, MBE	Faculty Abstract Presenter	Advisory Board: Novartis
Steven Daveluy, MD, FAAD	Faculty Planning Committee	Consultant: AbbVie, Novartis, UCB Research: AbbVie, Novartis, UCB Speaker: AbbVie, Novartis, UCB
John Frew, MBBS, PhD	Faculty	Consultant: AbbVie, Boeringher Ingleheim, Janssen, Novartis, Pfizer, UCB
Athena Gierbolini	Planning Committee	Advisory Board: Incyte, Novartis
Noah Goldfarb, MD	Faculty	Advisory Board/Consultant: Boehringer Ingelheim, Novartis, Sonoma Biotherapeutics, UCB Clinical Trials: AbbVie, ChemoCentryx, Incyte, Pfizer, Sonoma Biotherapeutics Investigator: Incyte, Sonoma Biotherapeutics Research Support: DeepX Health, Novartis
lltefat Hamzavi, MD, FAAD	Faculty	Board Member/Past-President: HS Foundation and Global Vitiligo Foundation Advisory Board: AbbVie Consultant: AbbVie, Almirall, Avita, Boehringer Ingelheim, Galderma, Incyte, Jansen, MyDermPortal, Novartis, Pfizer, Sonoma, UCB, Union Therapeutics, Vimelae Investigator: AbbVie, Arcutis, Avita, Bayer, Chemocentyx, Clinuvel, Estee Lauder, Ferndale Laboratories, Inc., Incyte, ITN, Loreal/Laroche Posay, Pfizer, Unigen Inc. Ownership: Henry Ford Hospital
Jennifer Hsiao, MD	Faculty Planning Committee	Advisor: AbbVie, Boehringer Ingelheim, Incyte Consultant: AbbVie, Aclaris, Boehringer Ingelheim, Incyte, Novartis, UCB Investigator: Amgen, Boehringer Ingelheim, Incyte Speaker: AbbVie, Boehringer Ingelheim, Novartis, Sanofi Regeneron, UCB

CONFLICT OF INTEREST DISCLOSURES

Name	Role	Conflict(s)
John Ingram, MD, PhD	Faculty Abstract Presenter	Consultant: Abbvie, Boehringer Ingelheim, ChemoCentryx, Citryll, Insmed, Kymera Therapeutics, MoonLake, Novartis, UCB Pharma, UNION Therapeutics, Viela Bio Co-Copyright Holder: HiSQOL, Investigator Global Assessment and Patient Global Assessment Instruments for HS
Gregor Jemec, MD, DMSc	Faculty Oral Abstract Presenter	Advisor: UCB Investigator: AbbVie, Novartis
Hadar Lev-Tov, MD	Faculty Planning Committee	Consultant/Trialist: Novartis, UCB Stock Owner: Learnskin
Robert Micheletti, MD	Faculty	Consultant: Vertex Research Funding: Amgen, Boehringer Ingelheim, Cabaletta Bio, InflaRx
Martin Okun, MD	Faculty	Consultant: AbbVIe, Azora Therapeutics, Bluefin Biomedicine, Inc., Boehringer Ingelheim, Incyte, Novartis, Phoenicis, Regeneron, VYNE Therapeutics
Lauren Orenstein, MD, MSc	Abstract Presenter	Advisory Board: Novartis, UCB Consultant: UCB Grant: Novartis
Vanessa Peña-Robichaux, MD	Faculty	Advisor: Osquo
Vincent Piguet, MD, PhD, FRCP	Faculty Planning Committee	Avisory Board: LEO Pharma, Novartis, Sanofi, Union Therapeutics Donated Equipment: L'Oréal Grants: AbbVie, Bausch Health, Bristol Myers Squibb, Celgene, Eli Lilly, Incyte, Janssen, LEOPharma, L'Oréal, Novartis, Organon, Pfizer, Sandoz, Sanofi Speaker: Sanofi
Martina Porter, MD	Faculty Planning Committee	Consultant: AbbVie, Alumis, Avalo, Eli Lilly, Incyte, Janssen, Novartis, Pfizer, Prometheus Laboratories, Sanofi, Sonoma Biotherapeutics, Trifecta Clinical, UCB Grants: AbbVie, AnaptysBio, Bayer, Bristol Myers Squibb, Eli Lilly, Incyte, Janssen Pharmaceuticals, MoonLake Therapeutics, Novartis, Oasis Pharmaceuticals, Pfizer, Prometheus Laboratories, Regeneron, Sanofi, Sonma Biotherapeutics, UCB Investigator: AbbVie
Barry Resnik, MD	Faculty	Speaker: Novartis

CONFLICT OF INTEREST DISCLOSURES

Name	Role	Conflict(s)
Christopher Sayed, MD	Abstract Presenter	Consultant: Abbvie, Astrazeneca, Incyte, InflaRx, Logical Images, Novartis, Sanofi, Sandoz, Sonoma Biotherapeutics, UCB Investigator: Incyte, InflaRx, Novartis, UCB Speaker: AbbVie, Novartis
Vivian Shi, MD	Faculty	Advisory Board: AbbVie Consultant: AbbVie, Almirall, Altus Lab/ cQuell, Alumis, Aristea Therapeutics, Bain Capital, Boehringer-Ingelheim, Burt's Bees, Dermira, Eli Lilly and Company, Galderma, Genentech, GpSkin, Incyte, Kiniksa, LEO Pharma, Menlo Therapeutics, MYOR, Novartis, Pfizer, Polyfins Technology, Regeneron, Sanofi-Genzyme, Skin Actives Scientific, SUN Pharma, UCB Grants: Pfizer, Skin Actives Scientific Investigator: AbbVie, ASLAN, Burt's Bees, Castle Biosciences, Galderma, Kiniska, LEO Pharma, Regeneron, Target- PharmaSolutions Speaker: AbbVie, Novartis, Sanofi Genzyme/Regeneron
Sarah Whitley, MD, PhD	Faculty	Consultant: Guidepoint LLC Investigator: AbbVie
Se Mang "Simon" Wong, MD, FRCPC	Faculty Planning Committee	Advisory Board/Consultant: Abbvie, Amgen, Bausch Health, BioJamp, Boehringer Ingelheim, Bristol Meyers Squibb, Celltrion, Eli-Lilly, Galderma, Incyte, Janssen, Johnson & Johnson, Leo Pharma, Novartis, Pfizer, Sanofi, Sun Pharma, UCB Pharma Speaker: AbbVie, Eli-Lilly, Leo Pharma, Novartis, Pfizer, UCB Pharma



ORAL ABSTRACTS SCHEDULE

Friday, November 1			
	Time	Abstract Title	Presenter Name
	2:15 pm - 2:23 pm	Hidradenitis Suppurativa - The Evolution of Early Lesions (HiSTEL)	Gregor Jemec, MD, DMSc
	2:23 pm - 2:31 pm	Dysregulated Genes and Pathways Involved in Impaired Wound Healing in Hidradenitis Suppurativa	Bharadwaja Chava, MBBS
	2:31 pm - 2:39 pm	Stereo-Seq Identifies Stemness and Dysregulated Differentiation of Keratinocytes in HS Tunnel	Indra Adrianto, PhD
	2:39 pm - 2:47 pm	Mucosal associated invariant T (MAIT) cells in Patients with Hidradenitis Suppurativa	Qing-Sheng Mi, MD, PhD
	2:47 pm - 2:55 pm	Resident Cutaneous Memory T-Cells in Hidradenitis Suppurativa - An Immunohistochemical Cohort Study	James Pham, MD
	2:55 pm - 3:03 pm	Immune-Mesenchymal Interplay within the Tertiary Lymphoid Structures in Hidradenitis Suppurativa	Catherine Lu, PhD
	3:03 pm - 3:11 pm	Ahr Suppression and Microbial Dysbiosis Drive Tunnel Specific Cellular Phenotype	Raji Nagalla, MD, PhD
	4:00 pm - 4:08 pm	Genetic Susceptibility to Hidradenitis Suppurativa Predisposes to Cardiometabolic Disease	Valdemar Wendelboe Nielsen, BSc
	4:08 pm - 4:16 pm	Circulating Monocytes as a Marker of Response to Adalimumab in Patients with Hidradenitis suppurativa: A Single institution, Real-World Cohort Study	Falk Bechara, MD
	4:16 pm - 4:24 pm	Bimekizumab 2-Year Impact on HSSQ Skin Pain in Moderate to Severe HS: Data from BE HEARD EXT	Lauren Orenstein, MD, MSc
	4:24 pm - 4:32 pm	Ruxolitinib Cream for Milder Hidradenitis Suppurativa: 32-Week Data from a Randomized Phase 2 Study	Martina Porter, MD
	4:32 pm - 4:40 pm	The Nanobody [®] Sonelokimab in Patients with Moderate-To-Severe HS: MIRA Phase 2 Week 24 IHS4 Results	Christopher Sayed, MD

ORAL ABSTRACTS SCHEDULE

Saturday, November 2		
Time	Abstract Title	Presenter Name
9:15 am - 9:23 am	Body Dysmorphia and Eating Disorders in Patients with Hidradenitis Suppurativa	Christopher Guirguis, DMD
9:23 am - 9:31 am	The Burden of Hidradenitis Suppurativa: Time Trade-Off Values and Symptom Impacts on Quality of Life	Maneli Doroudian Tehrani, MD
9:31 am - 9:39 am	Improvement in Draining Tunnels in Response to Upadacitinib Treatment in Moderate-To-Severe HS	Falk Bechara, MD
9:39 am - 9:47 am	Characteristics of Response to IL-23 inhibition: Post-Hoc Analysis of the Phase 2 Nova Trial	John Frew, MD, PhD
9:47 am - 9:55 am	Efficacy and Safety of Remibrutinib in Patients with HS in a Randomized, Phase 2, Platform Study	Falk Bechara, MD
9:55 am - 10:03 am	Impact of hidradenitis suppurativa on maternal, fetal, and neonatal health outcomes	Kaiyang Li, BSc
11:10 am - 11:18 am	Depression and Hidradenitis Suppurativa: Implementing the PHQ-2 Tool into Dermatology Clinic Visits	Raveena Ghanshani, MS
11:18 am - 11:26 am	2 Million People Treated for HS from 2015 to 2024: A Common Condition in US Clinical Practice	Alexandra Charrow, MD, MBE
11:26 am - 11:34 am	Inflammatory Eye Disease in Patients with Hidradenitis Suppurativa: A Systematic Review	Hibo Rijal, BSc
11:34 am - 11:42 am	Risk of Mental Health Diagnosis is Reduced for Patients with HS on Biologic Therapy	Afua Ofori-Darko
2:20 pm - 2:28 pm	Comparative Analyses of HS Surgical Methods: A Systematic Review and Meta-Analysis	Kaiyang Li, BSc
2:28 pm - 2:36 pm	Surgeon Perception, Experience, and Willingness to Perform Hidradenitis Suppurativa Surgery	Rayad Shams, BS
2:36 pm - 2:44 pm	Regional Combined Excisional-Deroofing Technique (CEDT) for Deep Axillary Hidradenitis Suppurativa	Frank Kelly, MA

Saturday, November 2			
Time	Abstract Title	Presenter Name	
2:44 pm - 2:52 pm	Cost-Utility Analysis of Clinic-Based Deroofing versus Local Excision for Hidradenitis Suppurativa	Sabrina Hundal, BHSc	
2:52 pm - 3:00 pm	Dysregulated Genes Contributing to Suicide Risk in Patients with Hidradenitis Suppurativa	Uppala Radhakrishna, PhD	
3:00 pm - 3:08 pm	Spatial mapping of hidradenitis suppurativa lesions at single cell resolution	Victoria Fang, MD, PhD	

Sunday, November 3			
Time	Abstract Title	Presenter Name	
9:40 am - 9:48 am	Network Meta-Analysis of Efficacy and Safety of Medical Interventions for Hidradenitis Suppurativa	Kelly Frasier, DO, MS	
9:48 am - 9:56 am	Drug Survival of Biologics in Pediatric Patients with Hidradenitis Suppurativa Seen at Duke and MGH	Robyn Guo, BSc	
9:56 am - 10:04 am	Measuring Knowledge, Access to Care, and Psychosocial Impact in Spanish-Speaking Patients with HS	Shirley Parraga, BSc	
10:04 am - 10:12 am	Bimekizumab 2-Year Impact on HS Symptoms by Baseline Draining Tunnel Count: Data from BE HEARD EXT	Christopher Sayed, MD	
10:12 am - 10:20 am	Predicting Response to Adalimumab in Patients with Hidradenitis Suppurativa	Alexander Velaoras, BS	
10:20 am - 10:28 am	Dissecting cellulitis of the scalp and HS: A retrospective study of 106 patients	Raveena Ghanshani, MS	

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ORAL ABSTRACTS







Friday, November 1 - 2:15 pm - 2:23 pm

3000402 - Hidradenitis Suppurativa - The Evolution of Early Lesions (HiSTEL) Hessel Van der Zee¹, Filip Jablczynski², Ditte Saunte³, <u>Gregor Jemec⁴</u>

¹European Hidradenitis Suppurativa Foundation (EHSF), Dessau, Germany; Department of Dermatology, Erasmus Medical Center, Rotterdam, The Netherlands, ²Henlez, Denmark, ³Dept. of Clinical Medicine, Faculty of Health and Medical Sciences, University of Copenhagen, Denmark; Dept. of Allergy, Dermatology and Venereology, Herlev and Gentofte University Hospital, Gentofte, Denmark, ⁴Dept. of Clinical Medicine, Faculty of Health and Medical Sciences, University of Copenhagen, Denmark, Denmark

Background: Infundibular hyperkeratosis, perifollicular lymphocytic infiltrate and perifollicular edema are early morphology changes in Hidradenitis suppurativa (HS). The clinical appearance of these is a papule. Papules may progress into nodules (inflamed or not) and abscesses. All lesions go through different states: Appearance, persistence, progression, and disappearance. The evolution of lesions is however poorly described leaving a crucial gap in our understanding of the pathogenesis and clinical presentation of the disease.

Objective: Describe how early HS lesions evolve over 20 weeks.

Method: Participants testing topical therapy of early HS were recruited to provide daily photographs of the untreated contralateral region using a proprietary web application (name, manufacturer, city, land). Photographs were collected, stored, and sorted according to quality. For each week the best photo was then used for further analysis. Lesions were classified according to type and followed over time to describe their evolution. A qualitative assessment was made of the patterns of evolution seen.

Results: Nine subjects delivered a full set of photos for all 20 weeks. Of the 15 papules present at baseline six disappeared, six persisted and three turned into inflamed nodules, the first week. Similarly, the two non-inflamed nodules persisted, one of three inflamed nodules turned into a papule and the remaining two persisted, while one of the five abscesses disappeared, two turned into inflamed nodules and two persisted.

Discussion: The study suggests that the initial lesion is the papule. Only a few transition into inflamed nodules and abscesses. Non-inflamed nodules do not appear to herald inflammation.



Friday, November 1 · 2:23 pm - 2:31 pm

3000319 - Dysregulated Genes and Pathways Involved in Impaired Wound Healing in Hidradenitis Suppurativa

<u>Bharadwaja Chava</u>¹, Sravanthi Pemmasani², Sushma Shah³, Aaren Vedangi⁴, Giovanni Damiani⁵, Uppala Radhakrishna⁶

¹NRI Medical college and Hospital, ²Area hospital, Chirala, AP India, ³Department of Obstetrics and Gynecology, BJ Medical College Institute of Medical Post-Graduate Studies and Research Ahmedabad, India, ⁴Department of Clinical Research, KIMS ICON Hospital, A unit of ICON Krishi Institute Medical Sciences, Sheelanagar, Visakhapatnam, India, ⁵Italian Center of Precision Medicine and Chronic Inflammation, University of Milan, Milan, Italy., ⁶Department of Anesthesiology and Perioperative Medicine, Pittsburgh, PA 15261



Friday, November 1 - 2:15 pm - 2:23 pm

3000402 - Hidradenitis Suppurativa - The Evolution of Early Lesions (HiSTEL) Hessel Van der Zee¹, Filip Jablczynski², Ditte Saunte³, <u>Gregor Jemec⁴</u>

¹European Hidradenitis Suppurativa Foundation (EHSF), Dessau, Germany; Department of Dermatology, Erasmus Medical Center, Rotterdam, The Netherlands, ²Henlez, Denmark, ³Dept. of Clinical Medicine, Faculty of Health and Medical Sciences, University of Copenhagen, Denmark; Dept. of Allergy, Dermatology and Venereology, Herlev and Gentofte University Hospital, Gentofte, Denmark, ⁴Dept. of Clinical Medicine, Faculty of Health and Medical Sciences, University of Copenhagen, Denmark, Denmark

Background: Infundibular hyperkeratosis, perifollicular lymphocytic infiltrate and perifollicular edema are early morphology changes in Hidradenitis suppurativa (HS). The clinical appearance of these is a papule. Papules may progress into nodules (inflamed or not) and abscesses. All lesions go through different states: Appearance, persistence, progression, and disappearance. The evolution of lesions is however poorly described leaving a crucial gap in our understanding of the pathogenesis and clinical presentation of the disease.

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Results: Nine subjects delivered a full set of photos for all 20 weeks. Of the 15 papules present at baseline six disappeared, six persisted and three turned into inflamed nodules, the first week. Similarly, the two non-inflamed nodules persisted, one of three inflamed nodules turned into a papule and the remaining two persisted, while one of the five abscesses disappeared, two turned into inflamed nodules and two persisted.

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Friday, November 1 · 2:23 pm - 2:31 pm

3000319 - Dysregulated Genes and Pathways Involved in Impaired Wound Healing in Hidradenitis Suppurativa

<u>Bharadwaja Chava</u>¹, Sravanthi Pemmasani², Sushma Shah³, Aaren Vedangi⁴, Giovanni Damiani⁵, Uppala Radhakrishna⁶

¹NRI Medical college and Hospital, ²Area hospital, Chirala, AP India, ³Department of Obstetrics and Gynecology, BJ Medical College Institute of Medical Post-Graduate Studies and Research Ahmedabad, India, ⁴Department of Clinical Research, KIMS ICON Hospital, A unit of ICON Krishi Institute Medical Sciences, Sheelanagar, Visakhapatnam, India, ⁵Italian Center of Precision Medicine and Chronic Inflammation, University of Milan, Milan, Italy., ⁶Department of Anesthesiology and Perioperative Medicine, Pittsburgh, PA 15261

Background: Hidradenitis suppurativa (HS) is a chronic inflammatory skin condition characterized by painful lesions, including deep-seated nodules, abscesses, skin-tunnels, and fibrotic scars. This condition significantly impairs wound healing, leading to chronic inflammation and persistent lesions. The resulting scarring and formation of skin tunnels severely affect the quality of life for those afflicted. The mechanisms underlying wound healing impairments in HS are currently unknown.

Objective: Our goal is to identify molecular markers implicated in wound care for HS patients. Understanding the mechanisms underlying these healing impairments is crucial for developing effective treatments and improving patient outcomes.

Method: We analyzed genome-wide DNA methylation patterns in peripheral blood from 24 HS cases and 24 healthy controls using the Infinium HumanMethylation450 BeadChip array (Illumina), followed by comprehensive bioinformatics and statistical analyses.

Results: We identified 52 genes with significant differential methylation related to wound healing, including 46 hypomethylated and 7 hypermethylated genes, plus miR132 with both changes. These genes are involved in collagen production (e.g., COL11A2, COL14A1), growth factors (e.g., EGFR, FGF2), integrins (e.g., ITGA6, ITGB1), laminin components (e.g., LAMA4, LAMC1), angiopoietins (e.g., ANGPT1, ANGPT2), PDGFs (e.g., PDGFA), thrombospondins (e.g., THBS1), and JAMs (e.g., JAM2). They are linked to 38 wound healing pathways, including PI3K-Akt signaling, focal adhesion, ECM-receptor interaction, and MAPK signaling.

Discussion: We report several dysregulated genes and pathways that impact wound healing, suggesting their potential as biomarkers and therapeutic targets. Further research is needed to validate and explore their applications.



Friday, November 1 - 2:31 pm - 2:39 pm

3000256 - Stereo-Seq Identifies Stemness and Dysregulated Differentiation of Keratinocytes in HS Tunnel

Peter Dimitrion¹, Jesse Veenstra¹, Ian Loveless², Deangelo Ferguson³, Aamir Siddiqi³, Iltefat Hamzavi⁴, Li Zhou⁵, Indra Adrianto⁶, Qing-Sheng Mi⁵

¹Center for Cutaneous Biology and Immunology Research, Department of Dermatology, Henry Ford Health, Detroit, Michigan, USA; Immunology Research Program, Henry Ford Cancer Institute, Henry Ford Health, Detroit, Michigan, USA., ²Center for Bioinformatics, Department of Public Health Sciences, Henry Ford Health, Detroit, Michigan, USA., ³Department of Plastic Surgery, Henry Ford Health, Detroit, Michigan, USA., ⁴Center for Cutaneous Biology and Immunology Research, Department of Dermatology, Henry Ford Health, Detroit, Michigan, USA, ⁵Center for Cutaneous Biology and Immunology Research, Department of Dermatology, Henry Ford Health, Detroit, Michigan, USA; Immunology Research Program, Henry Ford Cancer Institute, Henry Ford Health, Detroit, Michigan, USA; Department of Medicine, College of Human Medicine, Michigan State University, East Lansing, Michigan, USA; Department of Public Health Sciences, Henry Ford Health, Detroit, Michigan, USA; Department of Medicine, College of Human Medicine, Michigan State University, East Lansing, Michigan, USA; Department of Public Health Sciences, Henry Ford Health, Detroit, Michigan, USA; Department of Medicine, College of Human Medicine, Michigan State University, East Lansing, Michigan, USA; Department of Public Health Sciences, Henry Ford Health, Detroit, Michigan, USA; Department of Medicine, College of Human Medicine, Michigan State University, East Lansing, Michigan, USA.

Background: Dermal sinus tracts (or tunnels) are pathognomonic features of severe hidradenitis suppurativa (HS) and propagate inflammation. Current paradigm suggests tunnels arise from hair follicle abscess rupture leading to misguided differentiation of hair follicle stem cells. However, the keratinocyte-intrinsic processes and gene expression profiles of tunnel-keratinocytes are not well described.

Objective: Our objective is to define keratinocyte-intrinsic differences between non-lesional, lesional epidermal, and lesional tunnel keratinocytes.

Method: We performed spatial enhanced resolution omics-sequencing (Stereo-seq), which provides spatial transcriptomes at single-cell resolution, on a non-lesion and lesion with tunnels from the same HS patient and did subsequent immunohistochemistry validation in an independent cohort of HS lesions.

Results: Stereo-seq results showed that tunnel keratinocytes, non-lesional epidermis, and lesional epidermis are transcriptionally distinct. Gene ontology found an enrichment of pathways involved in skin development in tunnel epithelia and lesional epidermis but not in non-lesional epidermis. Enrichment against GTeX tissue profiles shows that tunnel keratinocyte gene expression is highly similar to esophageal and vaginal epithelia. Along these lines, marker gene exploration revealed tunnel expression of outer root sheath (ORS) markers (Krt14 and Krt16) and Krt13, which is normally found in gastrointestinal squamous epithelia and promotes epithelial cell stemness. Notably there was a lack of expression of Krt25, which marks the inner root sheath. The antimicrobial peptidase inhibitor Pi3 (elafin) also appeared to be expressed in in tunnel keratinocytes compared to non-lesional and lesional epidermis.

Discussion: Our data suggests misguided differentiation of ORS stem cells adopts a transcriptional profile akin to mucosal epithelia.



Friday, November 1 - 2:39 pm - 2:47 pm

3000302 - Mucosal associated invariant T (MAIT) cells in Patients with Hidradenitis Suppurativa

Jugmohit Toor¹, Peter Dimitrion¹, Iltefat Hamzavi¹, Indra Adrianto², Li Zhou², Qing-Sheng Mi²

¹Henry Ford Health, ²Henry Ford Health and Michigan State University

Background: Hidradenitis suppurativa (HS) is a chronic inflammatory condition characterized by painful and debilitating skin lesions. Few studies have characterized peripheral immune dysregulation in HS. Mucosal associated invariant T (MAIT) cells are an invariant T cells that responds directly to bacterial threats and involved in autoimmune disorders, cancers, and inflammatory diseases.

Objective: We sought to investigate the frequency and function of MAIT cells in blood and lesion from HS patients.

Method: Peripheral blood mononuclear cells (PBMCs) were isolated from the blood of HS patients and healthy controls. PBMCs were stained with surface markers: V α 7.2, CD3, CD161, CD4, CD8, and MR1 tetramers, and intracellular markers: IL-17, TNF α , and IFN γ after stimulation. The single cells from HS lesions were only stained with surface markers. Flow cytometry assays were performed to analyze these cells.

Results: The frequency of MAIT cells did not significantly change in HS patients, however, we observed a significant reduction in the frequency of IFNy+ and TNF α + MAIT cells in the periphery of HS patients. Furthermore, we analyzed MAIT cell subsets by their CD4 surface expression, we found that the frequency of CD4+MAIT cells in the periphery of HS patients is significantly increased, while the frequency of CD4-MAIT cells is significantly decreased. Furthermore, HS patients have a reduction in CD4- IFNg+ and TNFa+ MAIT cells. Finally, HS lesions had a significant increase in frequency of CD4+MAIT cells.

Discussion: These findings suggest that peripheral MAIT cells are dysregulated in HS patients, which may contribute to the pathogenesis of the disease. (This project is funded by NIAMS/NIH)



Friday, November 1 - 2:47 pm - 2:55 pm

3000347 - Resident Cutaneous Memory T-Cells in Hidradenitis Suppurativa - An Immunohistochemical Cohort Study James Pham¹, John Frew¹

¹Liverpool Hospital, Sydney, NSW, Australia

Background: Resident cutaneous memory T-cells (cT-RMs) are CD103+/69+ lymphocytes which remain in previously inflamed skin. Such cT-RMs have been shown to mediate recurrence in inflammatory dermatoses including psoriasis vulgaris and atopic dermatitis. The potential contribution of cT-RMs to the chronicity of HS is unknown.

Objective: To investigate the prevalence and clinicopathological associations of cT-RMs in HS.

Method: 6mm biopsies from lesional and non-lesional HS skin were stained for CD69/103, IL-17A and FoxP3 and underwent semiquantitative measurements. Numbers of cT-RMs were compared in lesional versus non-lesional skin, as well as in lesional skin stratified by clinical parameters using the Wilcoxon rank sum test. Correlation between lesional cT-RM counts and continuous variables was assessed using Spearman's test. Adjustment for multiple comparisons was made using the Benjamini-Hochberg procedure.

Results: 35 patients were recruited. Median CD69+/103+ cells (cT-RMs) was 15 in lesional versus 0 in non-lesional skin (P LESS THAN 0.001). Lesional cT-RMs clustered in the dermis and adjacent to tunnels. No significant difference in lesional cT-RM counts by sex, Hurley stage and smoking status was observed. There was no significant correlation between cT-RM counts and age, BMI, IHS4, or HS duration; or with IL-17A+ and FoxP3+ cell counts. However, lesional tissue with tunnels (n=19) had significantly higher cT-RMs - median 20 versus 10 (P=0.013).

Discussion: Our study provides evidence regarding the presence of cT-RMs in HS, with higher numbers in tunnels suggesting their pathogenicity in advanced disease. Further research into factors leading to their development and potential as therapeutic targets in HS is warranted.



Friday, November 1 - 2:55 pm - 3:03 pm

3000272 - Immune-Mesenchymal Interplay within the Tertiary Lymphoid Structures in Hidradenitis Suppurativa

Wei-Wen Yu¹, Joy Barrett¹, Jie Tong¹, Meng-ju Lin¹, Jia-ren Lin², Jia-yun Chen², Peter Sorger², Sandro Santagata², Ernest Chiu¹, <u>Catherine Lu¹</u>

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Background: Hidradenitis Suppurativa is a severe chronic inflammatory skin disease. The mechanisms underlying its potential autoimmune pathogenesis and the factors contributing its chronicity have not been elucidated.

Objective: As Tertiary lymphoid structures (TLS) are crucial for sustaining chronic inflammation in autoimmune
diseases and tumors by fostering immune cell interactions, we sought to understand whether and how TLS may be contributing to HS autoimmune pathogenesis and chronicity.

Method: Combining single cell RNA sequencing, TCRsequencing and BCR sequencing, we analyzed the transcriptomic landscape and immune cell clonality within the HS lesional skin. Multiplexed immunofluorescent imaging and spatial transcriptome were also performed to provide a comprehensive understanding of immune cell composition in TLSs in HS. Further, we employed a microfluidic system to reconstruct "TLS-on-a-Chip" to examine how HS lesional fibroblasts may contribute to TLS formation.

Results: Within the TLSs located near HS tunnels, we found extensive proliferation of Tfh, Treg, and pathogenic T cells (IL17A+ and IFNG+), alongside extensive clonal expansion of plasma cells producing antibodies specifically reactive to HS lesional keratinocytes. HS skin fibroblasts resembling stromal cells in secondary lymphoid organs (SLO), expressed CXCL13 or CCL19, in response to immune cytokines. Using a microfluidic system, we showed that HS fibroblasts are critical in orchestrating lymphocyte aggregation and proliferation via TNF α -CXCL13 and TNF α -CCL19 feedback loops with B and T cells, respectively. Early TNF α blockade effectively suppresses lymphocyte aggregation, emphasizing the role of this cytokine predominantly in initiation.

Discussion: Our study elucidates mechanisms driving chronic inflammation in HS and potentially sheds light on other autoimmune skin disease.



Friday, November 1 · 3:03 pm - 3:11 pm

3000294 - Ahr Suppression and Microbial Dysbiosis Drive Tunnel Specific Cellular Phenotype

Nathan Balukoff¹, Tammy Gonzalez¹, Ali Kamiar¹, Raji Nagalla¹, Jelena Marjanovic¹, Andrew Sawaya¹, Elina Zhilov¹, Barry Resnik², Hadar Lev-Tov¹, Marjana Tomic-Canic¹, IRENA PASTAR¹, Raji Nagalla³

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Background: Advanced hidradenitis suppurativa (HS) tunnels exacerbate disease with robust inflammation and microbial dysbiosis, resembling aberrant wound healing. However, tissue repair and the role of microbiome in HS tunnels remain poorly understood.

Objective: We aimed to characterize the wound response of HS tunnel keratinocytes and fibroblasts and explore the role microbiome-sensing AhR pathway.

Method: Comparative gene ontology (GO) and Ingenuity pathway analysis (IPA) was performed using bulk RNAseq and scRNAseq data from tunnel and lesional tissue. The transcriptional signature was complemented with16s rDNA microbiome profiling. Furthermore, we isolated and characterized primary keratinocytes, fibroblasts, and pathogens from the above stratified tissue, and confirmed omics data using wounding assays, immunohistochemistry, and qPCR.

Results: IPA revealed decreased AhR signaling in tunnel keratinocytes, including suppression of CYP1A and CYP1B. Suppression of AhR correlated with reduced abundance of known commensals including Cutibacterium and Lactobacillus. Additionally, GO analysis showed enrichment in inflammatory wound healing processes in both lesional and tunnel tissue, confirmed by immunohistochemistry. Tunnel keratinocytes displayed a "wound activated" phenotype with increased expression of keratins 6, 16 and 17 and faster migration compared to lesional keratinocytes, an effect reversed with AhR activation. Tunnel fibroblasts also migrated faster compared to fibroblasts from lesional and healthy skin.

Discussion: While previous studies demonstrated that skin microbiota mediate AhR signaling and barrier repair, here we identify that dysbiosis in HS tunnels correlates with unfettered inflammation and

wound healing phenotype driven by suppression of AhR signaling. Our data provide a novel rationale for therapeutic targeting of tunnel-specific AhR.



Friday, November 1 · 4:00 pm - 4:08 pm

3000320 - Genetic Susceptibility to Hidradenitis Suppurativa Predisposes to Cardiometabolic Disease

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Background: Hidradenitis suppurativa (HS) is associated with increased prevalence of cardiovascular diseases compared with the general population. Any relationship between polygenic predictors of HS, risk of incident cardiometabolic outcomes, and the plasma proteome is unclear.

Objective: To investigate the genetic correlation between HS and cardiometabolic disease. Risks of coronary artery disease (CAD) and diabetes and changes in the plasma proteome were investigated using a polygenic risk score for HS (PRSHS).

Method: 391,481 individuals of European ancestry were included. Median follow-up time was 13.7 years. Correlations were assessed between HS susceptibility and cardiometabolic traits using linkage disequilibrium-score regression. Odds ratios (ORs) were assessed in logistic regressions. Risks of incident CAD and diabetes were examined in cause-specific survival models designed as time-to-event analyses.

Results: Genetic variants for HS correlated significantly with variants for CAD, diabetes, and plasma levels of high-density lipoprotein cholesterol, triglycerides, and C-reactive protein. Compared with the low-risk group, a high PRSHS (GREATER THAN =75th percentile) conferred an OR of 1.09 (95% CI: 1.06-1.12, P LESS THAN .001) for CAD, and 1.13 (95% CI: 1.10-1.17, P LESS THAN .001) for diabetes. Estimates remained consistent when examining only incident CAD and diabetes. PRSHS was significantly associated with altered expression of 58 plasma proteins. Integrating this proteomic profile and PRSHS in a machine learning model improved prediction of CAD and diabetes compared with a reference risk model based on sex, age, and BMI.

Discussion: Patients with a genetic susceptibility to HS are predisposed for CAD and diabetes. Additional investigation into the identified proteins and their potential roles as drug targets is warranted.



Friday, November 1 · 4:08 pm - 4:16 pm

3000210 - Circulating Monocytes as a Marker of Response to Adalimumab in Patients with Hidradenitis suppurativa: A Single institution, Real-World Cohort Study Nessr Abu Rached¹, Jana Hebst², Thilo Gambichler³, Schapoor Hessam², Lennart Ocker², Marina

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Background: Adalimumab is the longest approved biologics for Hidradenitis suppurativa (HS). There is a lack of biomarkers and clinical characteristics associated with response to adalimumab.

Objective: To identify clinical characteristics and serum biomarkers to predict treatment response to adalimumab.

Method: A retrospective study was conducted to determine potential predictive parameters. Overall, the study involved 143 patients with HS, including 52 with Hurley I, 53 with Hurley II and 38 with Hurley III. Primary endpoint was the time to treatment discontinuation with the event of adalimumab ineffectiveness

Results: The median time to discontinuation of adalimumab was 501 days (IQR 28-2219). Most patients (88.8%, n = 127) were treated with non-biosimilar adalimumab. 57 of the patients discontinued treatment for various reasons (39.9%). 10.5% of patients (n=15) discontinued due to lack of efficacy, 17.5% (n=25) due to adverse events, and 11.9% (n=17) due to patient preference. Age, BMI, duration of HS, disease severity, use of a biosimilar, injection schedule and comorbidities were not associated with response to adalimumab (all p GREATER THAN 0.05). Patients with monocyte counts \geq 925/µl at baseline showed a significantly higher risk of Adalimumab ineffectiveness, with a hazard ratio of 5.87 (95% CI: 2.01-17.2, p = 0.001). At 12 and 24 months, drug survival in the lower monocyte count group was 95.7 and 90.6%, respectively, compared with 61.5 and 52.7% in the higher monocyte count group.

Discussion: For the first time, we found that baseline monocyte counts of HS patients are an independent marker of long-term response to adalimumab. HS patients with monocyte counts \ge 925/µl at baseline had significantly reduced adalimumab effectiveness over time.



Friday, November 1 · 4:16 pm - 4:24 pm

3000238 - Bimekizumab 2-Year Impact on HSSQ Skin Pain in Moderate to Severe HS: Data from BE HEARD EXT

Lauren Orenstein¹, Vivian Y. Shi², Hadar Lev-Tov³, Errol Prens⁴, John R. Ingram⁵, John W. Frew⁶, Hideki Fujita⁷, Robert Rolleri⁸, Jérémy Lambert⁹, Christina Crater⁸, Leah Davis⁸, Jacek C. Szepietowski¹⁰

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Background: Patients with hidradenitis suppurativa (HS) experience pain which negatively impacts quality of life. Bimekizumab (BKZ) is a humanized IgG1 monoclonal antibody that selectively inhibits interleukin (IL)-17F in addition to IL-17A.

Objective: Here, we report proportions of patients with moderate to severe HS achieving clinically meaningful pain outcome improvements over 2 years across BE HEARD I and II (BHI and II) and openlabel BE HEARD EXT (BHEXT) phase 3 trials.

Method: Data were pooled from BHI and II (NCT04242446, NCT04242498) and BHEXT (NCT04901195). Week48 BHI and II completers could enroll in BHEXT and receive open-label BKZQ2W or BKZQ4W based on ≥90% HS Clinical Response (HiSCR90; averaged from BHI and II Weeks36/40/44). Data are reported for all patients randomized to BKZ in BHI and II who enrolled in BHEXT (BKZ Total).

Week48/Week96 HS Symptom Questionnaire (HSSQ; individual symptom items scored 0–10) skin pain response (30% reduction and \geq 1-point reduction from baseline score of \geq 3), alongside HSSQ absolute/percentage change from baseline (%CfB), are reported (observed case).

Results: Among 657 BHI and II Week48 completers who entered BHEXT, 556 patients received continuous BKZ.

At baseline, mean±SD HSSQ skin pain score of patients in BKZ Total (n=551): 5.8 ± 2.4 ; skin pain GREATER THAN 0 was reported by 98.5% (543/551) of BKZ Total patients. Among BKZ Total patients with baseline pain score ≥ 3 (n=496), 72.2% (358/496)/78.5% (306/390) achieved Week48/Week96 HSSQ skin pain response. Through Weeks0–48/Weeks0–96, mean±SD absolute CfB in HSSQ skin pain score: $-3.0\pm2.8/-3.5\pm3.0$; %CfB: $-48.0\%\pm49.4\%/-56.9\%\pm54.2\%$.

Discussion: In patients randomized to BKZ, clinically meaningful skin pain improvements observed to 1 year were maintained to 2 years.

Funding: UCB Pharma. Medical writing: Costello Medical.



Friday, November 1 - 4:24 pm - 4:32 pm

3000359 - Ruxolitinib Cream for Milder Hidradenitis Suppurativa: 32-Week Data from a Randomized Phase 2 Study

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Background: Hidradenitis suppurativa (HS) is a chronic, progressive, debilitating, inflammatory skin condition.

Objective: To assess efficacy and safety of twice-daily (BID) 1.5% ruxolitinib cream for the treatment of mild-to-moderate HS.

Method: In this phase 2 study (NCT05635838), adults (N=69) with Hurley stage I/II HS, no draining tunnels, and a total abscess and inflammatory nodule (AN) count of 3–10 were equally randomized to ruxolitinib cream or vehicle for a 16-week continuous treatment, after which all patients applied ruxolitinib cream BID as needed (AN count \geq 1 and/or Skin Pain Numerical Rating Scale score \geq 1) during a 16-week open-label extension (OLE). Data are reported as observed.

Results: Change from baseline (CFB) in AN count at Week 16 (primary endpoint) was greater for ruxolitinib cream vs vehicle (least squares mean change, -3.61 vs -2.42, respectively; P=0.02). Clinical responses (AN count CFB, $\geq 50\%$ and $\geq 75\%$ reduction in AN count from baseline [AN50, AN75], HS Clinical Response [HiSCR50], and International HS Severity Score System [IHS4] CFB) were sustained through the OLE with as-needed use. Patients switching from vehicle to ruxolitinib cream demonstrated clinical improvement at Week 32 (AN count mean CFB, -3.96; AN50, 88.5%; AN75, 61.5%; HiSCR50, 88.5%; and IHS4 mean CFB, -4.5). Overall, ruxolitinib cream was generally well tolerated, with low incidences of serious treatment-emergent adverse events (TEAEs), grade ≥ 3 TEAEs, and TEAEs leading to discontinuation.

Discussion: Ruxolitinib cream application improved clinical signs and represents a novel approach to treating milder HS, for which there are no currently approved treatments. These results warrant further investigation.



Friday, November 1 · 4:32 pm - 4:40 pm

3000229 - The Nanobody® Sonelokimab in Patients with Moderate-To-Severe HS: MIRA Phase 2 Week 24 IHS4 Results

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Background: Sonelokimab is an IL-17A- and IL-17F-targeting Nanobody designed to penetrate inflammatory tissues. The Phase 2 MIRA trial achieved the primary endpoint of HiSCR75 and the key secondary endpoint of change from baseline in IHS4 at Week (W) 12 in adults with moderate-to-severe HS.

Objective: We present the MIRA W24 IHS4 results.

Method: MIRA was a 24-week global, randomized, double-blind, placebo-controlled trial (NCT05322473). At W12, patients receiving sonelokimab continued their allocated dose; patients receiving placebo were re-randomized 1:1 to sonelokimab 120mg/240mg. Absolute and percentage changes in IHS4 from baseline were assessed at W24. IHS4 was evaluated post hoc in a subgroup of patients with 'very severe' HS, defined as baseline IHS4 ≥35. W24 data are reported as observed (discontinuation rate <10%).

Results: At baseline, 67 and 66 patients were randomized to receive sonelokimab 120mg and 240mg, respectively. Mean IHS4 score at baseline was 30.9; all patients had a 'moderate' (IHS4 4–10; 15.0%) or 'severe' (IHS4 \geq 11; 85.0%) IHS4 severity grade. Improvements in IHS4 continued through W24 with sonelokimab (mean [%] change from baseline: 120mg, -22.3 [-65.2%]; 240mg, -15.9 [-54.5%]), even in patients with the most severe disease at baseline (IHS4 \geq 35; 120mg, -63.8% [n=20]; 240mg, -64.3% [n=17]). Overall, 47% of patients receiving sonelokimab 120mg achieved 'inactive or mild' disease (IHS4 \leq 3) by W24.

Discussion: Sonelokimab demonstrated substantial improvements in IHS4 to W24. The ongoing Phase 3 VELA 1 and 2 trials will further examine IHS4 outcomes with sonelokimab 120mg in patients with moderate-to-severe HS.



Saturday, November 2 · 9:15 am - 9:23 am

3000203 - Body Dysmorphia and Eating Disorders in Patients with Hidradenitis Suppurativa

Lauren Ching¹, Christopher Guirguis¹, Mikael Horissian²

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Background: Hidradenitis suppurativa has been hypothesized to have detrimental psychological effects on mental health, body image, and eating habits with some literature showing that approximately 17% of female HS patients report concerns related to dieting or problematic eating behaviors, and that about 20% experience frequent binge-eating episodes.

Objective: This study explores the relationship between eating disorders (EDs) and HS, to highlight the need for screening and psychosocial interventions.

Method: Data from the National Institutes of Health's All of Us Research Program was utilized. Patients with HS were identified, and a control group was established from individuals without HS diagnoses. OMOP codes were used to identify anorexia nervosa (AN), bulimia nervosa (BN), body dysmorphic disorder (BDD), binge eating disorder (BED), and ED, unspecified. Obsessive-compulsive disorder

(OCD) was also included due to its association with BN. Cohorts were matched using k-nearestneighbor propensity score matching and comorbidity comparisons were made using χ^2 tests.

Results: In univariate analysis, patients in the HS cohort showed increased diagnoses of BN, BED, OCD, and ED, unspecified by 2.6, 5.48, 2.50, and 2.43 times, respectively (p LESS THAN 0.05). Upon adjusting for age, race, gender, and ethnicity, patients with HS were 4.46 times as likely to have a diagnosis of BED and 3.51 times as likely to have a diagnosis of BN (p LESS THAN 0.05).

Discussion: The increased comorbidity of BN and BED in HS patients underscores the need for psychosocial interventions and ED screening. Inclusive treatment models that address the psychological impacts of HS are essential to improve patient outcomes and quality of life.



Saturday, November 2 · 9:23 am - 9:31 am

3000374 - The Burden of Hidradenitis Suppurativa: Time Trade-Off Values and Symptom Impacts on Quality of Life

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¹Beth Israel Deaconess Medical Center

Background: Hidradenitis Suppurativa (HS) is a debilitating skin condition that impairs patients' quality of life (QoL).

Objective: We aim to quantify the burden of HS using time trade-off methods and explore its factors.

Method: A survey was administered to adult HS patients at an academic medical center from 2022 to 2023. The primary outcome was the number of life years traded for freedom from HS symptoms. A multivariable logistic regression was employed to evaluate the association of demographics, lesion count, and Dermatology Life Quality Index (DLQI) scores with the number of traded years out of 50 years.

Results: 62 patients completed the survey. The majority was female (70.5%) and white (64.5%) with a median age of 35.5 (IQR: 30.0-43.0). According to HS-PGA, 39.3% had moderate disease. On average, participants were willing to trade 16.2 years of life to be free from HS (\pm 18.5) and for relief from HS-related symptoms were 10.6 (\pm 16.2) for pain, 9.2 (\pm 15.7) drainage, 5.9 (\pm 13.7) smell, 5.9 (\pm 13.8) itch, 5.9 (\pm 12.7) scarring, and 3.9 (\pm 9.9) discoloration. DLQI scores were independently associated with higher trade-off values (Coefficient: 0.95, 95% CI: 0.1-1.8), whereas disease severity did not show a significant association.

Discussion: This study highlights the significant impact of HS on patients' QoL, with an average willingness to trade 16.2 years of life to be free from the disease. The independent association between DLQI scores and higher trade-off values, regardless of disease severity, underscores the subjective burden of HS. Future research should investigate how therapies address disease severity and the most bothersome symptoms.



Saturday, November 2 · 9:31 am - 9:39 am

3000269 - Improvement in Draining Tunnels in Response to Upadacitinib Treatment in Moderate-To-Severe HS

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Background: This post hoc analysis assessed the effect of up to 40 weeks of treatment with upadacitinib (UPA) on draining tunnels (DTs) in pts with moderate-to-severe HS.

Objective: n/a

Method: In the phase 2 NCT04430855 study, adult pts were randomized (2:1) to once daily oral UPA 30mg or placebo (PBO) for 12 weeks, following which pts on PBO switched to blinded UPA 15mg. Post hoc efficacy assessments comparing UPA 30mg and in study PBO/UPA 15mg treatment groups included CFB in DT count, and in pts with at least 3 DTs at baseline, the percent CFB in DT count. Mixed model for repeated measure (MMRM) handled missing data.

Results: 68 pts were enrolled with mean (SD) DT counts of 3.4 (4.74) and 4.3 (6.17) for UPA 30mg (N=47) and in study PBO (N=21) treatment groups. Pts receiving UPA 30mg (N=39) achieved a greater CFB in DT count (-1.4,LS-mean -1.9, nominal P=0.02) vs PBO(+0.5,N =18) at wk12, and continued to show improvement from baseline (-2.4) at week 40 (N=29). Pts who switched to UPA 15mg at week 12 achieved a CFB of -1.8 in DT count at week 40. At wk12, the DT percent CFB showed a greater reduction for UPA 30mg(-43.3%,nominal P=0.029) vs. PBO(+1.56%). At week 40, the DT percent CFB for UPA 30mg (N=11) and UPA 15mg were -64.5% and -72.7%.

Discussion: Treatment with UPA provided greater reduction in DTs compared to in study PBO at 12 weeks, with sustained improvement in DT count seen over 40 weeks.



Saturday, November 2 · 9:39 am - 9:47 am

3000339 - Characteristics of Response to IL-23 inhibition: Post-Hoc Analysis of the Phase 2 Nova Trial John Frew¹

¹University of New South Wales

Background: Hidradenitis Suppurativa is characterized by IL-17 mediated inflammation, and IL-23 has been identified as upregulated. However, the Phase 2 NOVA trial of Guselkumab in HS failed to achieve primary endpoint. Clinical and molecular responses to IL-23 antagonism have been demonstrated in vivo, however specific characterization of the patients responsive to IL-23 antagonism is unknown.

Objective: To identify patient characteristics of individuals with response to IL-23 antagonism from individual patient data from the NOVA Phase 2 clinical trials.

Method: Individual patient data was made available by JNJ via the Yoda portal. All de-identified data was assessed for validity and all calculations conducted using R programming. Response to Guselkumab was assessed using HiSCR75, HiSCR90, and IHS4-55 as dichotomous variables. Continuous variables included AN count, draining tunnel count and IHS4 score. Comparison between treatment arms until the week 16 primary endpoint were assessed. A-priori associations including gender and BMI were assessed as potential confounders.

Results: Stratification by gender demonstrated a significant response to Guselkumab therapy at Week 16 in Males compared to placebo as measured by HiSCR-75 (p=0.04) and AN Count (p=0.025). Significance was maintained after adjustment for other demographic and baseline disease variables.

Discussion: Mechanistic data suggests that sex hormones play a significant role in monocyte polarization and development, leading to the hypothesis that men, and men with lower BMI may have greater clinical response to IL-23 antagonism. The results from this post-hoc reanalysis identify that men have a greater clinical response to Guselkumab than women, reaching significance in outcomes including HiSCR-75 and AN count.



Saturday, November 2 - 9:47 am - 9:55 am

3000227 - Efficacy and Safety of Remibrutinib in Patients with HS in a Randomized, Phase 2, Platform Study

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Background: A possible role for B-cells and activation of the Bruton's tyrosine kinase (BTK) pathway in the pathogenesis of hidradenitis suppurativa (HS) has recently emerged.

Objective: To assess remibrutinib in patients with moderate to severe HS.

Method: NCT03827798 is a randomized, double-blind, placebo-controlled platform study. In one study cohort reported here, patients were randomized to receive remibrutinib (highly selective oral BTK inhibitor) 25mg (N=33), 100mg (N=33), or placebo (N=11), twice daily for 16 weeks. The primary endpoint was the simplified HiSCR rate (sHiSCR; \geq 50% reduction in abscess and inflammatory nodule count, with no increase in draining tunnels, versus baseline) and key exploratory endpoints were HiSCR, HiSCR75, and HiSCR90 rates in patients treated with remibrutinib versus pooled placebo from all study cohorts (N=49) at week 16. The primary endpoint was assessed using Bayesian analysis providing the probability that remibrutinib treatment is better than placebo.

Results: Patients treated with remibrutinib reported greater sHiSCR at week 16 (remibrutinib 25mg, 72.7% [probability=0.999]; 100mg, 48.5% [probability=0.896]) versus placebo (34.7%), with separation between remibrutinib and placebo observed from week 2. Responder rates at week 16 were higher in remibrutinib 25mg and 100mg treatment arms versus placebo (HiSCR: 69.7%, 48.5%, versus 32.7%; HiSCR75: 42.4%, 27.3% versus 18.4%; HiSCR90: 36.4%, 15.2% versus 8.2%). Remibrutinib was well

tolerated; adverse event (AE) frequencies were comparable between treatment arms, with three serious AEs reported (one per arm).

Discussion: Remibrutinib showed superior clinical efficacy versus placebo in patients with moderate to severe HS. BTK inhibition may emerge as a promising therapeutic intervention in HS.



Saturday, November 2 · 9:55 am - 10:03 am

3000257 - Impact of hidradenitis suppurativa on maternal, fetal, and neonatal health outcomes

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Background: Hidradenitis suppurativa (HS) is a chronic inflammatory condition associated with significant comorbidity, particularly in women of childbirth age.

Objective: We aimed to investigate the impact of maternal HS on maternal and neonatal health outcomes.

Method: We conducted a population-based cohort study in Quebec, Canada, including 1,324,488 deliveries from 2006 to 2022. The cohort comprised 1,332 pregnant patients diagnosed with HS. The exposure was maternal HS. We examined outcomes such as preeclampsia and gestational hypertension, sepsis, cesarean delivery, postpartum hemorrhage, stillbirth, preterm birth, and congenital anomalies. We calculated the relative risks (RR) with 95% confidence intervals (CI) for the relationship between HS and pregnancy outcomes using adjusted log-binomial models.

Results: Compared to patients without HS, those with HS had an increased risk of preeclampsia and gestational hypertension (RR 1.57, 95% CI 1.31-1.88), sepsis (RR 2.72, 95% CI 1.30-5.68), cesarean delivery (RR 1.20, 95% CI 1.40-1.85), and intensive care unit admission (RR 2.67, 95% CI 1.66-4.31). HS was not associated with increased risks of placenta previa or retained placenta. Infants born to mothers with HS were at higher risk of preterm birth (RR 1.29, 95% CI 1.08-1.54) and heart defects (RR 1.57, 95% CI 1.02-2.44), but not stillbirth or respiratory distress syndrome.

Discussion: HS is linked to an increased risk of adverse maternal, fetal, and neonatal outcomes. Clinicians and patients should be aware of these risks. Timely and effective management and screening for patients with HS might help to mitigate these risks.



Saturday, November 2 · 11:10 am - 11:18 am

3000399 - Depression and Hidradenitis Suppurativa: Implementing the PHQ-2 Tool into Dermatology Clinic Visits

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Background: Patients with HS have high rates of depression and other psychiatric comorbidities. There is a paucity of data regarding use of the Patient Health Questionnaire-2 (PHQ-2) tool in patients with HS.

Objective: To examine feasibility and utility of PHQ-2 screening at an HS clinic.

Method: A retrospective chart review was conducted on HS patients seen at the University of Southern California HS clinic who completed a PHQ-2 screening questionnaire between 1/1/24-6/30/24.

Results: There were 151 patients (80.8% female), mean age 37.5 years old with Hurley I (12.8%), II (54.7%), and III (32.4%) HS. Patients identified as White (31.9%), Black (18.8%), Asian (4.9%), Multiracial (2.1%), and Other (42.4%); 28.9% were Hispanic. Over a quarter (26.5%, 40/151) of patients screened positive on the PHQ-2. 26.3% of Hurley I, 25.9% of Hurley II, and 27.1% of Hurley III patients screened positive. Over half (55%, 22/40) of patients with a positive PHQ-2 did not carry a pre-existing diagnosis of depression. Of the patients with a positive PHQ-2 score, 60% (24/40) were new clinic visits and 40% (16/40) were follow-up patients. Actions taken for patients who screened positive included providing mental health resources, referrals for therapy, and advising patients to seek further work-up with primary care or psychiatry.

Discussion: Dermatologists should consider implementing PHQ-2 evaluations into their HS clinic visits for all HS patients, regardless of Hurley stage or new versus return patient visits, to help detect and monitor depression with minimal clinic flow disruption.



Saturday, November 2 · 11:18 am - 11:26 am

3000365 - 2 Million People Treated for HS from 2015 to 2024: A Common Condition in US Clinical Practice

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Background: Dermatologists report anecdotally that HS is commonly seen in clinical practice, but information on the number of current patients is limited.

Objective: To provide the most comprehensive and contemporary assessment to date on people currently treated for HS in the US, not including those who are undiagnosed, untreated, or uninsured.

Method: We identified people with \geq 1 HS diagnosis code (ICD-L73.2) in a dataset provided by Komodo Health comprising an estimated ~65% of all US healthcare claims covering 86% of the US population between October 2015 and March 2024. To estimate how our dataset scales to the full US population, we assume capture rates of 65% and 100% for people with 1 and \geq 2 HS diagnosis code(s), respectively.

Results: 1,675,701 people have HS claims in our dataset. 76% are female; 89% are aged 18–65; and 61% are commercially insured (vs. 14% Medicare, 25% Medicaid). 216,395 people had their first HS claim within our dataset in 2023, compared with 192,121 in 2016. In the twelve months preceding our

cut-off date, the rate of biologic use was 3.4% among those with HS claims. Common comorbidities include obesity (73%), heart conditions (58%), and psychiatric disorders (57%).

Discussion: We estimate ~2.3 million people—predominantly women of working age—are already being treated for HS in the US (scaling our dataset to the full population), which may be more people than commonly recognized. As underdiagnosis is thought to be widespread, the true prevalence of HS is likely considerably higher.



Saturday, November 2 · 11:26 am - 11:34 am

3000356 - Inflammatory Eye Disease in Patients with Hidradenitis suppurativa: A Systematic Review

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Background: Hidradenitis suppurativa (HS) is an inflammatory skin disease characterized by chronic, recurrent abscesses, nodules and scarring primarily in intertriginous regions. Patients diagnosed with HS often experience significant comorbidities of inflammatory or autoimmune etiology including inflammatory eye disease (IED), most commonly anterior uveitis.

Objective: This systematic review evaluates this association by summarizing prevalence of inflammatory eye disease and response to therapy in patients with HS.

Method: A systematic search of Cochrane, EMBASSE and MEDLINE were completed using the keywords and variations: "hidradenitis suppurativa" and "eye disease".

Results: A total of 21 studies with 355 participants were included. Participant's mean age was 39.1 years (range: 15-53 years), including 103 males (29.1%) and 252 females. A total of 79 cases of IED were reported in HS patients.

The mean latency period of IED following diagnosis of HS was 9.7 months (range: 0-15 months). Average documented Hurley score was 2.9 (stage 3, n=70; stage 2, n=2; stage 1, n=2). In cases of IED warranting treatment (n=51), treatment outcomes and subsequent resolution of IED was reported in 60.8% (n=31) of cases and documented as complete (CR), partial (PR) and no (NR) resolution. CR was reported in 71% (n=22) of cases following systemic biologic therapy (n=10) and steroid (n=12) therapy. PR was reported in 29% (n=9) of cases following with systemic biologics (n=3), corticosteroids (n=5), and antibiotic (n=1) therapy.

Discussion: This review confirms association of IED in HS patients, providing insight into comorbid HS conditions, and call to determine appropriate therapeutic strategies for symptom relief and optimization of treatment outcomes.



Saturday, November 2 · 11:34 am - 11:42 am

3000260 - Risk of Mental Health Diagnosis is Reduced for Patients with HS on Biologic Therapy

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Background: HS is associated with comorbid mental health conditions. Biologic therapies have been shown to improve quality of life in HS, but their impact on mental health outcomes remains understudied.

Objective: To compare the incident risk of mental health diagnoses in patients with HS on biologic treatments compared to those who are not.

Method: Our retrospective cohort study in TriNetX measured mental health diagnosis rates between patients with HS who were prescribed biologics (n=15,041) and those who were not (n=185,665). Propensity score matching was performed on 15 characteristics, resulting in 14,081 patients per cohort, of which 71% were female, 47% were White, 33% were Black, and 8% were Hispanic. Patients with the outcome of mental health diagnosis prior to the study time window were excluded.

Results: Patients with HS who were prescribed a biologic had reduced risk of incident (first time) mental health diagnosis compared to those who were not: depression (RR=0.919, 95%CI: 0.859, 0.938), anxiety (RR=0.826, 95%CI: 0.778-0.878), bipolar disorder (RR=0.632, 95%CI: 0.531, 0.752), alcohol abuse (RR=0.893, 95%CI: 0.798, 0.998), suicidal ideation/attempt (RR=0.850, 95%CI: 0.743, 0.973), PTSD (RR=0.798, 95%CI: 0.688, 0.925), and substance abuse (RR=0.821, 95%CI: 0.712, 0.945). No significant differences were observed for schizophrenia, disruptive mood disorders, eating disorders, OCD, or personality disorders.

Discussion: Biologic therapies reduce the risk of being diagnosed with a mental health disorder, particularly mood and anxiety disorders. This could possibly be due to improved HS symptom management and improved quality of life. Future prospective studies are necessary to assess causality and duration of impact.



Saturday, November 2 · 2:20 pm - 2:28 pm

3000251 - Comparative Analyses of HS Surgical Methods: A Systematic Review and Meta-Analysis

<u>Kaiyang Li</u>¹, Katya Peri¹, Vincent Piguet², Lily Xu³, Areeba Chaudhry⁴, Rafael Paolo Langsang⁴, Naila Bouadi⁵, Jessica Asgarpour², Stephanie Goldberg⁶, David Croitoru²

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Background: Hidradenitis suppurativa (HS) often necessitates surgical management due to its recalcitrant and debilitating nature.

Objective: Our systematic review and meta-analysis directly compared HS excision and reconstruction methods with a focus on post-operative recurrence.

Method: Studies comparing at least two different surgical methods were included, therefore controlling for factors including surgical setting, surgeon experience, and outcome assessment criteria. Studies with data available to calculate effect sizes were included in the meta-analysis; otherwise, studies were included in the systematic review only. Risk ratios (RRs) with 95% confidence intervals (CI) were calculated.

Results: Thirty-two studies were included in the systematic review. At least 8,240 procedures were performed on 6,922 patients. From most to least common, excision techniques included wide local excision (WLE; 2,010 procedures, 24.4% of all procedures reported), excision of unspecified type (1,784 procedures, 21.7%), deroofing (314 procedures, 3.8%), limited local excision (LLE; 208 procedures, 2.5%), and laser ablation (40 procedures, 0.5%). Wound healing methods included primary closure (1,603 procedures, 19.5%), secondary intention healing (230 procedures, 2.8%), flaps (216 procedures, 2.6%), grafting (178 procedures, 2.2%), and vacuum-assisted closure (82 procedures, 1.0%). Other common procedures included incision-and-drainage (I and D; 2,018 procedures, 24.5%) and debridement (1,265 procedures, 15.4%).

Discussion: WLE was associated with a lower risk of recurrence than LLE (RR 0.57, 95%CI 0.44-0.83, p=0.005) and I and D (RR 0.50, 95% CI 0.35-0.71, p LESS THAN 0.0001). Simple primary closure showed lower recurrence than split-thickness skin grafting (RR 0.76, 95% CI 0.590.97, p=0.03). No difference in recurrence rate was found between secondary intention healing and primary closure (RR 1.03, 95% CI 0.74-1.43, p=0.88).



Saturday, November 2 · 2:28 pm - 2:36 pm

3000220 - Surgeon Perception, Experience, and Willingness to Perform Hidradenitis Suppurativa Surgery

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Background: Hidradenitis suppurativa (HS) patients face significant barriers to accessing surgery. **Objective:** We surveyed 30 board-certified surgeons regarding their perceptions, comfort level, and interest in HS surgery and their willingness to perform surgery on HS patients with certain common comorbidities.

Method: An anonymous, one-time Qualtrics survey was administered to a convenience sample of board-certified surgeons within the United States.

Results: 73.3% of surgeons reported high confidence in performing hidradenitis suppurativa (HS) surgeries, 66.6% believed surgery is helpful, and 63.3% felt the benefits outweigh the risks. Despite this, only 50% were interested in performing HS surgeries, and 46.7% enjoyed seeing HS patients. Most surgeons reported HS patients typically sought surgery (56.7%) and believed surgery was helpful (60%). However, 50% found HS patients difficult, and many cited inadequate reimbursements. Most (86.7%) felt there were not enough surgeons performing HS surgery, and 76.7% noted insufficient HS-specific training. Surgeons performing more than three HS surgeries monthly had statistically significant higher confidence, interest, and enjoyment in treating HS patients (p LESS THAN 0.0005). Regarding patient factors, 63% would not operate on active smokers, and less than half would not operate on vapers or nicotine replacement users. However, most were willing to operate on former smokers (76.7%) and vapers (80%). Surgeons were also likely to operate on overweight (76.7%) and obese

patients (56.7%) but less likely with high HgA1c levels citing concerns about wound healing, infection, and surgical complications.

Discussion: Key factors including surgeon interest, inadequate reimbursements, insufficient training, and HS-related comorbidities are limiting surgical access for HS patients.



Saturday, November 2 · 2:36 pm - 2:44 pm

3000338 - Regional Combined Excisional-Deroofing Technique (CEDT) for Deep Axillary Hidradenitis Suppurativa

Frank Kelly¹, Justin Kula², Venessa Pena-Robichaux³, Vanessa Martinek², Stephanie Goldberg²

¹Liberty University College of Osteopathic Medicine, ²Mary Washington Healthcare, Fredericksburg, VA, ³Department of Internal Medicine, Division of Dermatology, Dell Medical School, University of Texas, Austin, TX

Background: Complete regional excision of axillary Hidradenitis Suppurativa (HS) is an effective surgical treatment associated with minimal recurrence. However, patients with severe disease may have tunnels that extend towards the axillary vessels or beneath the pectoralis muscle. Excisional techniques pose increased risk for neurovascular injury and lymphadenopathy.

Objective: We developed a novel combined regional excisional-deroofing technique (CEDT) to minimize the risk of long-term neurovascular complications and recurrence. CEDT involves circumferential excision of HS disease followed by tracking of tunnels into axillary or infra-pectoral space with associated deroofing.

Method: Patients undergoing complete regional excision from Dec 2022 to May 2024 with deep tunnels extending towards axillary vessels or beneath pectoralis underwent CEDT with secondary intention healing. Patients were followed for outcomes (recurrence, neuropathic pain, mobility, lymphadenopathy) and satisfaction.

Results: 11 patients underwent regional axillary CEDT. Mean age was 25.3 years and mean BMI was 27.6 kg/m². 45.4% of patients were on a biologic and one patient was on peri-operative ertapenem therapy. No patients had diabetes or smoked. Post-operatively, there were no patients with recurrences, long-term neuropathic pain, or lymphadenopathy. 2 patients (18%) noted decreased mobility that they attributed to non-compliance with post-operative exercises. 3 patients (27%) reported post-operative numbness or neuropathic pain that resolved with healing. 91% reported satisfaction and achievement with goals of surgery; one patient stated they would not undergo formal excision again due to healing time.

Discussion: CEDT provides a safe alternative to formal axillary excision without increased risk of recurrence or long-term neurovascular complications resulting from deeper axillary dissection.



Saturday, November 2 - 2:44 pm - 2:52 pm

3000213 - Cost-Utility Analysis of Clinic-Based Deroofing versus Local Excision for Hidradenitis Suppurativa

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¹University of Toronto, ²Public Health Agency of Canada, ³McGill University, ⁴Mary Washington Healthcare

Background: Hidradenitis Suppurativa (HS) is a chronic skin condition that impairs patients' quality of life (QOL). Deroofing and excision are common clinic-based surgical options, both potentially resulting in adverse events that incur unintended costs and reduce QOL. Evidence suggests deroofing has relatively lower rates of adverse events, defined as disease recurrence or post-surgical complications.

Objective: This study evaluates the economic and health-related impacts of deroofing versus local excision through a cost-utility analysis. The primary objective is to compare the direct medical costs and quality-adjusted life years (QALYs) associated with both clinic-based procedures.

Method: A targeted literature review of clinical outcomes, EQ-5D utilities, and resource utilization was performed to develop and validate a Markov model. Patients began in a pre-procedural state and transitioned monthly between three health states: responders (0 adverse events present), non-responders (≥1 adverse events present), and death. The model assessed the cost-effectiveness (cost per QALY gained) of deroofing versus excision over a two-year horizon from the U.S. healthcare system perspective.

Results: Base case results showed deroofing provided an additional 2.22 QALYs at a slightly higher incremental cost of \$311 per patient relative to excision. This yielded a highly favorable incremental cost-effectiveness ratio of 140, well below the formal cost-effectiveness threshold of \$50,000 per QALY gained. Cost-effectiveness was sensitive to adverse event rates and utility values.

Discussion: The findings suggest deroofing is more cost-effective than local excision for clinic-based procedural management of HS, demonstrating a significant incremental improvement in patients' self-rated health-related QOL. Methodological constraints from limited published data were addressed through sensitivity analyses.



Saturday, November 2 · 2:52 pm - 3:00 pm

3000345 - Dysregulated Genes Contributing to Suicide Risk in Patients with Hidradenitis Suppurativa

<u>Uppala Radhakrishna</u>¹, Bharadwaja Chava², Sravanthi Pemmasani³, Sushma Shah⁴, Aaren Vedangi⁵, Lavanya Uppala⁶

¹University of Pittsburgh, ²NRI Medical college and Hospital, ³Area hospital, Chirala, AP India, ⁴Department of Obstetrics and Gynecology, BJ Medical College Institute of Medical Post-Graduate Studies and Research Ahmedabad, India, ⁵Department of Clinical Research, KIMS ICON Hospital, A unit of ICON Krishi Institute Medical Sciences, Sheelanagar, Visakhapatnam, India, ⁶Creighton university medical center **Background:** Hidradenitis suppurativa (HS) is a chronic skin condition characterized by painful symptoms, scarring, and reduced quality of life. It is also linked to significant psychological challenges, including depression, anxiety, and suicidal thoughts and behaviors. Despite this, many genetic and epigenetic factors related to suicide risk and their impact on gene expression remain unclear.

Objective: To identify epigenetic signatures associated with an elevated risk of suicide in HS cases.

Method: Using the Illumina HumanMethylation450 BeadChip array, we examined methylation variations associated with suicide in 24 HS cases and matched controls. Data analysis utilized integrated bioinformatics methods, including false discovery rate (FDR) followed by pathway analysis.

Results: We identified 409 significantly differentially methylated genes in HS patients associated with suicide, with 357 hypomethylated and 52 hypermethylated. These genes are involved in depression (HTR2A, PAX5, RERE, SOD2 TLR3), glucose metabolism genes (eg. ALDH7A1, ARNT2, BIK, BRAF, CACNA1C PCCA) hypoxia (CX3CR1, CYR61, NOTCH4), Impulsivity (eg. BDNF, HTR2A, NOTCH4, PRKCA, PRKCH, SLC6A3, TPH2), pain (eg. ABCG1, ADARB2, BDNF, CACNA1C, CACNA2D3, CACNG2, DNMT1) Stress and Trauma (HTR2A). These genes enriched six pathways: calcium signaling, oxytocin signaling, synaptic vesicle cycle, glutamatergic synapse, hypertrophic cardiomyopathy, and dopaminergic synapse.

Discussion: Our findings indicate a variation in methylation associated with suicidal behavior and psychiatric disorders in HS, suggesting common molecular mechanisms. This understanding may reveal therapeutic targets and interventions. DNA methylation status could also serve as a biomarker for predicting severe suicidal ideation in HS patients, aiding in timely intervention for high-risk individuals.



Saturday, November 2 · 3:00 pm - 3:08 pm

3000370 - Spatial mapping of hidradenitis suppurativa lesions at single cell resolution <u>Victoria Fang¹</u>, Matthew Lee², Abigail Zellmer³, Amy Baxter³, Laura Cesar¹, Stephen Prouty¹, Donna Brennan-Crispi¹, Robert Micheletti¹, Yacine Sow⁴, Michelle Weir¹, Nicholas Mollanazar¹, Dana Pueschl⁵, Naomi Douek⁶, Radhika Gupta⁷, Fahad Ahmed⁷, Jeffrey Gordon⁷, Alana Ferreira⁷, Rishi Raghav Suresh⁸, Alaina Hunt¹, Dokyoon Kim⁹, Aimee Payne¹⁰, Derek Oldridge³, E. John Wherry¹¹

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Background: Hidradenitis suppurativa (HS) is an inflammatory skin disease that causes painful abscesses and draining sinus tracts, and effective treatments remain elusive. We hypothesize that the spatial organization of immune cells and stromal cells and their interactions are important factors in disease pathogenesis, but these processes remain poorly studied.

Objective: To better understand the in situ interactions in HS, we sought to map the spatial interactions of immune and stromal cells of hidradenitis lesions at single cell resolution utilizing highly multiplexed immunofluorescence imaging.

Method: We developed a 49-parameter antibody panel for CODEX, a highly multiplexed imaging platform. By visualizing all 49 markers in lesional HS patient tissues sections (n=17 patients and n=5 healthy controls), and conducting unsupervised clustering and annotation of cell types, we spatially mapped immune populations in HS skin at the single-cell level.

Results: We saw increased proportions of B cells, plasma cells, neutrophils, CD4 T, CD8 T and certain epithelial cell clusters in HS lesions compared with healthy control skin. Lymphoid aggregates of varying maturation states were present within skin lesions, including tertiary lymphoid structures with bona-fide germinal center reactions exhibiting light zone and dark zone polarity. Additionally, immune cell compositions differed substantially across different regions of HS lesions, and several immune cell types could be identified in separate distinct neighborhoods. For example, plasma cells were enriched near perivascular niches as well as near tertiary lymphoid structures.

Discussion: Our work describes the complexity of the immune landscape of HS skin, helping to identify potential mechanisms of disease.



Sunday, November 3 - 9:40 am - 9:48 am

3000373 - Network Meta-Analysis of Efficacy and Safety of Medical Interventions for Hidradenitis Suppurativa

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Background: Drug development for moderate-to-severe hidradenitis suppurativa (HS) is robust. However, there is a paucity of direct head-to-head comparisons of active treatments, since most randomized controlled trials (RCTs) include placebo as the comparator.

Objective: To compare efficacy and safety of medical treatments for moderate-to-severe HS using network meta-analysis.

Method: We conducted a systematic review of parallel-group RCTs of medical therapies (biologics and other cytokine or small-molecule inhibitors) for moderate-to-severe HS. Databases (Medline, EMBASE, CINAHL) and clinical trial registries (ClinicalTrials.gov, CENTRAL) were searched from inception to June 28, 2024. RCTs of adults with at least 20 subjects per arm were included. Primary efficacy and safety outcomes were Hidradenitis Suppurativa Clinical Response (HiSCR-50) and serious adverse events, respectively. Results were quantitatively synthesized using frequentist network meta-analysis.

Results: There were 25 trials with 5,767 total patients and 39 unique treatments that were included. Compared with placebo, the following treatments had significantly higher HiSCR-50 response rates: sonelokimab 120mg Q4W, lutikizumab 300mg Q2W, adalimumab 40mg QW, sonelokimab 240mg Q2W, bimekizumab 320mg Q2W, povorcitinib 15mg QD, bimekizumab 320mg Q4W, secukinumab 300mg Q2W. Adalimumab 40mg QW was associated with higher HiSCR-50 response rates compared to all treatments other than sonelokimab 120mg Q4W and lutikizumab 300mg Q2W, though most differences were not statistically significant. No treatment demonstrated a significant safety signal relative to placebo. Specific numerical results and figures will be presented if accepted.

Discussion: In the absence of head-to-head active-comparator trials, this analysis may help inform treatment decisions for clinicians and patients with HS.



Sunday, November 3 - 9:48 am - 9:56 am

3000360 - Drug Survival of Biologics in Pediatric Patients with Hidradenitis Suppurativa Seen at Duke and MGH

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Background: Previous studies found that overall drug survival of adalimumab and infliximab in adult HS patients at 12/24 months was 56.3%/30.5% and 58.3%/48.6%, respectively. They also found that older age, longer disease duration, higher BMI and surgery during treatment were predictive of increased drug survival. To our knowledge, biologic survival in pediatric HS patients has not been previously investigated.

Objective: 1. Determine biologic survival in pediatric HS patients and whether biologic survival differs between pediatric and adult HS patients.

2. Determine what factors are predictive of biologic survival and cessation in pediatric HS patients.

Method: Kaplan-Meier survival curves were used to calculate biologic survival at 12 and 24 months following initiation. Univariate Cox regression analysis was used to analyze potential predictors of biologic survival and cessation.

Results: Adalimumab survival in pediatric HS patients at 12 months was 90.6% (95% CI: 83.0%, 98.8%) and at 24 months was 78.3% (95% CI: 67.7%, 90.6%) compared to 56.3% and 30.5% in adult HS patients. Infliximab survival at 12 months in pediatric HS patients was 54.5% (95% CI: 31.8%, 93.6%) and at 24 months was 36.4% (95% CI: 16.6%, 79.5%) compared to 58.3% and 48.6% in adult HS patients.

Discussion: Comparing biologic survival in pediatric and adult HS patients allows us to determine whether age plays a significant role in biologic survival. Determining what factors are predictive of biologic survival and cessation allows us to identify which pediatric HS patients may benefit most from initiation of biologic therapy.



Sunday, November 3 - 9:56 am - 10:04 am

3000333 - Measuring Knowledge, Access to Care, and Psychosocial Impact in Spanish-Speaking Patients with Hs

<u>Shirley Parraga</u>¹, Cristo Armando Carrasco Mendoza², Priscila Arellano Zameza¹, Rita Pichardo¹

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Background: Spanish-speaking patients with hidradenitis suppurativa (HS) face challenges due to language barriers and cultural perspectives, which may impact their understanding of the disease, treatment access, and psychosocial well-being.

Objective: To assess general knowledge, access to care, and psychosocial impact of HS in Spanishspeaking patients. A secondary aim was to identify needs in this population and evaluate the effectiveness of an educational intervention.

Method: Records of the dermatology service in a single-center hospital in North Carolina from August 2023 to July 2024 were reviewed to identify Spanish-speaking patients with HS. Certified, bilingual researchers conducted pre-interview surveys with participants. Following the pre-interview, patients received an HS care kit and educational materials. Post-interview surveys were then conducted.

Results: 20 participants were enrolled. All (100%) participants were native Spanish-speakers. Most (75%) participants were female. The mean age was 31 (range: 19-58). Most (75%) were diagnosed in childhood or adolescence, often by non-dermatologists. Time from symptom onset to diagnosis was \geq 5 years for 71% of patients. 17 (85%) participants knew HS was not contagious, 18 (90%) participants knew it was not due to poor hygiene, and two (10%) patients were aware of the Hurley stages. Over half (55%) of patients had no HS-related visits in the past year, and only 15% had a scheduled follow-up appointment. All patients (100%) reported satisfaction with the resources provided by the study.

Discussion: There is a clear need for qualitative studies that explore the specific challenges faced by Spanish-speaking HS patients. Targeted educational interventions may improve patient knowledge and care outcomes.



Sunday, November 3 - 10:04 am - 10:12 am

3000235 - Bimekizumab 2-Year Impact on HS Symptoms by Baseline Draining Tunnel Count: Data from BE HEARD EXT

<u>Christopher Sayed</u>¹, Martina Porter², Iltefat Hamzavi³, Kelsey R. van Straalen⁴, Andreas Pinter⁵, Ziad Reguiai⁶, Nobukazu Hayashi⁷, Robert Rolleri⁸, Jérémy Lambert⁹, Ingrid Pansar¹⁰, Rhys Warham¹¹, Athanassios Kolivras¹², Thrasyvoulos Tzellos¹³

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Background: Hidradenitis suppurativa (HS) is characterized by recurrent formation of lesions, including abscesses, and draining tunnels (DTs; fistulas/sinus tracts) that are often painful, pruriginous, and exude a malodorous discharge.

Bimekizumab (BKZ) is a humanized IgG1 monoclonal antibody that selectively inhibits interleukin (IL)-17F in addition to IL-17A.

Objective: We report how HS-specific patient-reported symptoms improve with BKZ treatment over time stratified by baseline DT count.

Method: Patients completing the 48-week BE HEARD I and II (BHI and II; NCT04242446, NCT04242498) phase 3 trials could enroll in the open-label BE HEARD EXT (BHEXT; NCT04901195).

Pooled data are reported for all patients randomized to BKZ in BHI and II who enrolled in BHEXT (BKZ Total).

Number of baseline DTs were grouped as 0, 1–2, 3–5, or GREATER THAN 5.

We report proportion of patients in severity categories (none/mild/moderate/severe/very severe) for HSSQ symptom items (scored 0–10) for itch, drainage/oozing, and smell/odor (observed case).

Results: Among 657 BHI and II Week48 completers who entered BHEXT, 556 patients received continuous BKZ.

When assessing smell/odor from HS lesions, very severe baseline values increased by number of DTs at baseline, from 28.2%–62.5%.

With BKZ treatment, the proportion of patients with none or mild smell/odor increased over time to 40.9%–63.8% at Week96, irrespective of the number of DTs at baseline.

Similar trends were seen for items assessing severity of itch and drainage/oozing from HS lesions.

Discussion: With BKZ treatment, patient reported symptoms related to HS lesions improved over 2 years regardless of baseline DT count.

Funding: UCB Pharma. Medical writing: Costello Medical.



Sunday, November 3 · 10:12 am - 10:20 am

3000263 - Predicting Response to Adalimumab in Patients with Hidradenitis Suppurativa

Albert Young¹, Arashleen Pannu², <u>Alexander Velaoras</u>³, Roland Leyson³, Rayad Shams⁴, Alexandra Turfe¹, Andrea Dai¹, Mohsen Mokhtari¹, Sarah Bassett¹, Christopher Sayed⁵, Qing-Sheng Mi¹, Richard Hass⁶, Sherry Yang⁷

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Background: Adalimumab achieves HiSCR50 in under half of patients with hidradenitis suppurativa (HS). Many initial responders experience decreased efficacy over time without reliable correlation to neutralizing drug antibodies. Little data exists on characteristics distinguishing responders from non-responders.

Objective: Identify clinical and laboratory predictors for primary failure, secondary failure, and sustained response in adult HS patients prescribed adalimumab.

Method: Medical records were reviewed across three academic centers for adult HS patients who initiated adalimumab from 2013-2023. Patients were categorized as (1) primary failure if medication discontinuation was <24 weeks, (2) secondary failure for discontinuation between 24 weeks <2 years, or (3) sustained response for \geq 2 years. Ordinal logistic regression was used for statistical modeling.

Results: Out of 160 patients, 28% were categorized as primary failure, 38% as secondary failure, and 34% as sustained responders. No statistically significant variables were found to be associated with adalimumab responses including demographics, Hurley stage, smoking status, WBC count, or antiadalimumab antibodies. A positive association was found between serum albumin and adalimumab response but was not significant (OR 2.1 [95% CI 0.9-4.6]; p=0.08).

Discussion: These results highlight limitations of routine clinical variables to predict adalimumab response underscoring the need to identify potential genetic, tissue, or blood biomarkers. The positive association between albumin and adalimumab response should be investigated further. Inflammatory Bowel Disease studies show hypoalbuminemia predicts treatment failure demonstrating albumin's potential relevance for other autoimmune disorders. Future studies will recruit additional patients which may lead to significant results.



Sunday, November 3 - 10:20 am - 10:28 am

3000400 - Dissecting cellulitis of the scalp and HS: A retrospective study of 106 patients

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Background: Dissecting cellulitis of the scalp (DCS) is an understudied condition that disproportionately affects Black males and may be a form of HS. DCS is often recalcitrant to therapy.

Objective: To explore a cohort of DCS patients' characteristics and response to therapies.

Method: A retrospective cohort study was conducted on patients with DCS (identified via ICD10 code L66.3) seen at the University of Southern California and Los Angeles County Department of Health Services dermatology clinics. Demographic and treatment response data were extracted.

Results: There were 106 patients (91.5% male) with mean age 32.2 years old at symptom onset and 35.3 at diagnosis. Patients identified as Hispanic (47.2%), Black (19.8%), White (6.6%), Asian (6.6%), other/not specified (19.8%). 23.6% were current or former smokers and median BMI was 32.4. Top comorbidities included acne (37.7% total, conglobata in 10.4%), hypertension (27.4%), HS (25.5%), hypercholesterolemia (25.5%), diabetes (23.6%), depression (21.7%), and anxiety (7.5%).

Top used therapies included systemic antibiotics (90.6%), topical treatments (87.7%), and intralesional corticosteroid (ILK, 48.1%). Few patients (11.3%) received a biologic. Patients had the highest response to spironolactone (female), finasteride (male) (2/2, 100%), acitretin (4/4, 100%), IV antibiotics (ceftriaxone, vancomycin) (7/7, 100%), ILK (49/51, 96.1%), biologics (adalimumab, infliximab, secukinumab) (15/17, 88.2%), and surgical excision (6/7, 85.7%). 75% of DCS patients with biologic usage and 100% with hormonal treatment usage history also had a diagnosis of HS.

Discussion: DCS patients may benefit from comorbidity screening, including for mental health disorders. Biologics and hormonal therapies may be underutilized but promising treatments for recalcitrant DCS.

POSTER PRESENTATIONS







3000196 - Bcl-2 and Bcl-XI are Potential Therapeutic Targets in Hidradenitis Suppurativa

<u>Viktor Todorovic</u>¹, Irène Gallais Sérézal², Mehrnaz Gharaee-Kermani³, Rachael Bogle³, Jennifer Fox³, Joseph B. Wetter¹, Clarissa L. Woody¹, Heather Knight⁴, Janice Y. Lee¹, Hua Tang¹, Gregory K. Potts¹, Jon D. Williams¹, Zachary K. Goldsmith¹, Neha Chaudhary⁵, Susan Westmoreland⁴, Robert W. Dunstan⁴, J. Michelle Kahlenberg⁶, Kelsey R. van Straalen⁷, Lam C. Tsoi³, Prisca Honore¹, Victoria E. Scott¹, Johann E. Gudjonsson³, Kathleen M. Smith⁵

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Background: Hidradenitis Suppurativa (HS) is a chronic debilitating inflammatory skin disease. Adalimumab, the first approved HS treatment, has improved the standard of care for patients but not all respond to treatment as defined by current response metrics. Genetic analysis of patients on anti-TNFa treatment revealed that a hyperactive variant of BCL2, a regulator of apoptosis, is associated with lack of clinical response to adalimumab.

Objective: This study aims to uncover the role for Bcl-2 family in HS pathophysiology.

Method: Using mass spectrometry, flow cytometry, histological methods, and RNA-seq analysis, this study demonstrates that Bcl-2 is enriched in blood of HS patients and that Bcl-2 and its paralogue Bcl-XL, are significantly elevated in specific cell populations within HS lesions.

Results: Notably, infiltrating T cells express both Bcl-2 and Bcl-XL, whereas diseased keratinocytes demonstrate a pronounced shift in expression from Bcl-2 to Bcl-XL. Most importantly, the bulk of the Bcl-2 expression localizes to CD20+ B cells, whereas CD138+ plasma cells predominantly express Bcl-XL in disease. Finally, we show that ex vivo HS patient skin explant cultures treated with Bcl-2 and Bcl-XL inhibitor, Navitoclax show rapid modification of transcriptomic changes and functional cell-cell interactions. A significant decrease in inflammatory mediators including CXCL8 and IL1B in myeloid cells, and IL17A/F in T cells are also noted.

Discussion: In summary, inhibition of the Bcl-2 and Bcl-XL pathways may effectively dampen the pathogenic B cell compartment, minimize presence of disease-promoting T cells, and impact aberrant functioning of pathogenic epithelium providing an additional treatment option for HS patients, including non-responders to adalimumab.



3000231 - In-Depth Characterization of the Inflammatory Mechanisms Underlying Hidradenitis Suppurativa Lesions

<u>Eva Cullen</u>¹, Ilaria Piccini², Markus Fehrholz², Sylke Schneider-Burrus³, Brian Kirby⁴, Jean Fletcher⁵, Marta Bertolini², Falk G. Bechara⁶, Kristian Reich⁷, James G. Krueger⁸

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Background: Early initiation of hidradenitis suppurativa (HS) involves follicle alterations that lead to painful inflammatory nodules and abscesses. Tunnels are a unique feature of HS that form in the dermis and, in the active inflammatory stage, are associated with purulent drainage.

Objective: We sought to characterize and compare the inflammatory profile of HS perilesional skin with lesional skin containing inflammatory nodules and tunnels.

Method: HS perilesional, nodule, and tunnel tissues were obtained from Hurley Stage II/III donors during surgery. Routine H and E and immunofluorescence were conducted for the imaging of Ki-67, MPO, CD11c, and CD3. Gene expression (RNA-seq validated by qRT-PCR) and protein analyses (cytokine array) were used for tissue characterization.

Results: Immunofluorescence showed limited-to-moderate keratinocyte proliferation and inflammatory infiltrate in perilesional skin. Keratinocyte proliferation and inflammatory infiltrate were more pronounced in inflammatory nodules. Non-draining tunnels were surrounded by CD3+ T cells but had limited neutrophil infiltration or keratinocyte proliferation. In contrast, draining tunnels were lined with proliferating keratinocytes and filled with MPO+ neutrophils. Transcriptomic signatures demonstrated separation between perilesional and lesional skin, with an overlap between inflammatory nodules and tunnels, albeit with a greater level of dysregulation in tunnels. Tunnels showed notably elevated expression of CXCL1, CXCL8, CCL20, IL17A, and IL17F. Protein assays confirmed observations at the mRNA level.

Discussion: Markers of immune inflammatory responses were greater in both inflammatory nodules and tunnels vs. perilesional skin, with a notable enhancement of IL-17 signaling in tunnels, indicating that tunnels represent a prominent source of active inflammation in HS.



3000232 - Evidence of a Role for IL-17F in the Pathophysiology of Dermal Tunnels in Hidradenitis Suppurativa

<u>Eva Cullen</u>¹, Kristian Reich², Ilaria Piccini³, Onur Egriboz³, Sylke Schneider-Burrus⁴, Brian Kirby⁵, Jean Fletcher⁶, James G. Krueger⁷, Marta Bertolini³, Falk G. Bechara⁸

¹MoonLake Immunotherapeutics AG, Zug, Switzerland, ²MoonLake Immunotherapeutics AG, Zug, Switzerland; Translational Research in Inflammatory Skin Diseases, Institute for Health Services Research in Dermatology and Nursing, University Medical Center Hamburg-Eppendorf, Hamburg, Germany, ³Monasterium Laboratory Skin and Hair Research Solutions, Münster, Germany, ⁴Department of Immunology, University Hospital Charité, Berlin, Germany; Center for Dermatosurgery, Havelklinik, Berlin, Germany, ⁵Charles Department of Dermatology, St. Vincent's University Hospital and Charles Institute of Dermatology, University College Dublin, Dublin, Ireland, ⁶School of Biochemistry and Immunology, Trinity Biomedical Sciences Institute, Trinity College Dublin, Dublin, Ireland; School of Medicine, Trinity Biomedical Sciences Institute, Trinity College Dublin, Dublin, Ireland, ⁷Laboratory of Investigative Dermatology, The Rockefeller University, New York, NY, USA, ⁸Department of Dermatology, Venereology and Allergology, Ruhr-University Bochum, Bochum, Germany **Background:** Painful, deep dermal draining tunnels are inflammatory lesions characteristic of hidradenitis suppurativa (HS). Sonelokimab is an IL-17A- and IL-17F-targeting Nanobody® designed to penetrate inflammatory tissues.

Objective: We sought to characterize tunnel pathophysiology, the role of IL-17F and IL-17A as key drivers of HS inflammation, and the potential of sonelokimab to modulate disease processes.

Method: Tissues from Hurley Stage II/III donors were characterized using H and E, immunofluorescence, RNA-seq, qRT-PCR, ELISA, and protein cytokine array. The impact of cytokine inhibition on tunnel-associated features was assessed in: (1) NHEKs treated in vitro with IL-17A/A or IL-17F/F, alone or with sonelokimab, secukinumab, or bimekizumab; (2) a 24-hour ex vivo HS perilesional/tunnel organ culture model treated with sonelokimab, adalimumab, or bimekizumab.

Results: Imaging showed draining tunnels are immunologically active structures characterized by neoepithelialization, Ki-67+ keratinocyte proliferation, and influx of MPO+ neutrophils. Upregulation of IL-17F and IL-17A (mRNA and protein), and IL-17-associated cytokines CXCL8 and CCL20, was observed in both nodules and tunnels vs. perilesional tissue, with highest levels detected in tunnels. IL-17F stimulated CXCL8 and CCL20 expression in NHEKs independently of IL-17A. Sonelokimab demonstrated greater inhibition of CXCL8 and CCL20 in IL-17 stimulated NHEKs vs. secukinumab or bimekizumab, and in an ex vivo HS tunnel model vs. adalimumab or bimekizumab.

Discussion: Dermal tunnels are a major source of inflammation in HS. IL-17F and IL-17A have significant pro-inflammatory roles in lesions. Consequently, inhibition of both IL-17A and IL-17F with tissue-penetrating therapies may contribute to more profound disease control, consistent with clinical data from the Phase 2 MIRA trial of sonelokimab in HS.



3000329 - Pathophysiology of Pro-Inflammatory Cytokines in Women with Hidradenitis Suppurativa

<u>Rudhasri Lakkuru</u>¹, Sahil Kapur¹, Mark Houdi¹, Anish Sharma¹, Priyal Kancharla², Kermanjot Sidhu³, Craig Burkhart¹

¹Department of Medicine, Division of Dermatology, University of Toledo College of Medicine and Life Sciences, ²Georgia Institute of Technology, ³Michigan State University College of Human Medicine

Background: Women are more susceptible to developing autoimmune conditions due to an increased involvement of pro-inflammatory cytokines like TNF-a, IL-6, and Th17. Various influences such as hormones, genetics, and lifestyle impact the magnitude of inflammation in women with HS.

Objective: Our study evaluates the pathophysiology of various pro-inflammatory cytokines in women diagnosed with HS.

Method: A literature review was conducted using PubMed and JAAD database. The PubMed search was performed using the following parameters: "hidradenitis suppurativa" AND "sex", "hidradenitis suppurativa" AND "comorbidities". JAAD was utilized with the following parameters: "hidradenitis suppurativa" AND "pregnancy".

Results: A total of 106 articles resulted with the search criteria of which only 30 had demographic data on HS in women with comorbidities. Common pro-inflammatory cytokines implicated in development of chronic HS in women were TNF-a, IL-6, and IL-17. In a study of 186 female patients, 43% reported an exacerbation of HS during menses and 30.2% reported an alleviation during pregnancy. Increased estrogen levels inhibit Th1 and Th17. Women are more susceptible to developing central obesity, especially in HS. Of 385 patients with HS, 238 females had central obesity (77%). Pathophysiologically, central obesity induces release of TNF-a and IL-6 which may promote development of HS. The

presence of extra X chromosomes is involved with expression of IL-12, IL-18, IL-27, TNF-a, and type 1 IFNs.

Discussion: Pro-inflammatory cytokines are prevalent in the pathophysiology of hormonal, genetic, and lifestyle-related HS diagnoses in women. The presence of these various influences can either upregulate or silence an inflammatory state.



3000334 - Explant Model as an Ex Vivo Model for Hidradenitis Suppurativa Camile Delva¹, Arthy Suresh², Isabella Brown-Soler², William Shipman², Henry Hsia², Anna Eisenstein²

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Background: Hidradenitis Suppurativa (HS) is an inflammatory skin condition that causes abscesses, nodules, and sinus tracts in intertriginous regions. Full understanding of HS disease pathogenesis is hampered by a lack of experimental models. In this study, we adapted an explant model that can serve as a valuable and accessible tool for studying HS disease mechanisms and potential therapeutic approaches.

Objective: To determine viability of HS tissue in culture over time and to determine differences in cytokine levels from specimens collected from normal, perilesional, and lesional skin.

Method: Tissue samples were obtained from patients undergoing surgical excision or deroofing procedures. Normal, perilesional, and lesional tissue was cultured for 10 days. Supernatant lactate dehydrogenase (LDH) and cytokine levels were measured at various time points. Hematoxylin and eosin (H and E) staining of formalin-fixed and paraffin-embedded explants after 10 days of culture were compared histologically to freshly obtained HS tissue samples.

Results: Tissue samples remained viable over the 10-day culture period, with minimal cytotoxicity observed in the supernatants. H and E staining demonstrated that the explants retained structural integrity. Cytokine levels were significantly elevated from lesional explants as compared to normal or perilesional explants.

Discussion: The explant model effectively maintains HS tissue viability and histological characteristics over 10 days, making it a reliable model for studying HS. Elevated lesional cytokine levels underscores the translatability of this model for human disease. This study presents a simple and useful model that can be used to study HS pathogenesis and to test therapeutics.



3000336 - An Updated Review of the Complex Pathogenesis of Hidradenitis Suppurativa John Frew¹

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Background: Hidradenitis Suppurativa is a complex inflammatory disease, with rapid advances being made in our understanding of the complex immunological pathogenesis of the condition. New insights into the genomic, immunological and hormonal landscape of HS have identified a number of novel pathways involved in disease pathogenesis.

Objective: This updated review of the molecular pathophysiology of HS is designed to update the practicing clinician regarding advances in the molecular understanding of disease

Method: Systematic Evaluation of the literature was undertaken as per standard PRISMA guidelines

Results: Novel genetic variants contribute to the development of HS in a polygenic manner, contributing to inflammatory dysregulation as well as alterations in epidermal stem cell fate in the follicular unit. Genetic alterations predispose to innate immune dysregulation which can be triggered through sex hormone responsive transcription factors with hormonal changes such as puberty, pregnancy and the menstrual cycle. Adipose tissue as an active immunological organ also plays a role in the immune dysregulation. Immunologically active fibroblasts play a significant role in the perpetuation of inflammation and development of adaptive immune dysfunction in the disease. The cutaneous and gut microbiome play a significant role in the activation of innate immunity, although conflicting data exist as to their central or peripheral role in disease pathogenesis.

Discussion: Overall, our understanding of disease pathogenesis in Hidradenitis Suppurativa is moving to a more nuanced, complex paradigm in which patient heterogeneity in presentation and immunological characteristics are stepping closer to the identification of therapeutic biomarkers to guide therapeutic modalities in the management of this burdensome condition.



3000342 - Insights Into Elevated Cardiovascular Risk in Hidradenitis Suppurativa Through Serum Biomarkers

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Background: Hidradenitis Suppurativa (HS) is a chronic inflammatory disease associated with an increased risk of cardiovascular events, including myocardial infarction and cerebrovascular accidents. Biomarkers for cardiovascular risk stratification in HS are lacking.

Objective: To investigate the molecular basis of cardiovascular risk in a cohort of HS patients by examining serum biomarkers of cardiovascular disease.

Method: We analyzed over 1,000 serum biomarkers using the OLINK high-throughput technology in serum of patients with HS (n=11), psoriasis (n=10), and age- and sex-matched healthy controls (n=10). Cardiovascular risk was assessed by calculating the fold change in protein expression of the relevant biomarkers, as documented in the cardiovascular medical literature.

Results: Expression levels of known biomarkers of cardiovascular risk, including IL-6, were significantly higher in HS serum compared to psoriasis and healthy controls. Expression level of these known cardiovascular biomarkers in HS exceeded the threshold for cardiovascular event risk.

Discussion: Our data provides molecular insights into the elevated cardiovascular risk in HS and identifies potential biomarkers for assessing cardiovascular risk reduction. Further studies can evaluate modulation of these proteins with systemic therapy.



3000344 - Single-Cell Profiling Identifies Enrichment of IL1Bhi Inflammatory Monocytes in Hs Skin Amina Tariq¹, Sarah Whitley², Anna Lloyd³

¹UMass Chan Medical School, ²University of Massachusetts T.H. Chan School of Medicine, ³University of pittsburg school of medicine

Background: IL-1 family cytokines are key initiators of homeostatic immunity and T17 skin inflammation. It has been reported that HS T17 cells have enriched expression of IL1R1 and IL1B compared to T17 cells derived from psoriasis lesions. However, the cellular source(s) of IL-1 in skin during health and disease remain undefined.

Objective: To characterize IL-1B expression and NLRP3 inflammasome activation in HS skin versus healthy controls, we used publicly available scRNA-seq data from 2 HS and 2 healthy skin samples with 3'v2 chemistry (NCBI GEO #GSE155176 and GSE155850).

Method: Clustering analysis was performed using Seurat v41.1. ScRNA-seq data sets were combined into single Seurat objects and aligned by canonical correlation analysis.

Results: We identified 13 clusters of myeloid cells in healthy skin, and 10 myeloid clusters in HS skin. We identified CCR1+ macrophages as the dominant myeloid source of IL1B in healthy skin, and found several macrophage and dendritic cell populations within healthy skin expressing low levels of IL1B. Inflammatory monocytes expressed high levels of IL1B within HS skin, and C1Qhi macrophages and conventional type 2 DCs (cDC2s) were minor sources. We found concordant expression of IL18, CASP1, NLRP3 in HS and healthy skin, suggesting that NLRP3 inflammasome activation and IL-1b secretion by myeloid cells occur both at steady-state and in disease. Myeloid CASP1, NLRP3, IL18, TNFA, and IL6 expression level was roughly equivalent across healthy and HS skin, however myeloid IL1B expression was higher in HS skin versus healthy.

Discussion: This implicate myeloid produced IL-1b and the NLRP3 inflammasome in the pathogenesis of HS.



3000348 - Cause of Chronic Pain in Hidradenitis Suppurativa is Due to Dna Deregulations

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Background: Hidradenitis suppurativa (HS) is a chronic skin disease causing intense pain and discomfort, primarily from lesions affecting nearby tissues. Pain in HS is driven by chronic inflammation, genetic factors, and secondary infections, and exacerbated by lifestyle factors such as smoking, obesity, and stress. These factors can influence DNA methylation patterns, although the exact role of HS in these alterations remains unclear.

Objective: Our goal was to identify molecular markers for chronic pain in HS patients

Method: We analyzed the DNA methylome of peripheral blood from 24 patients with HS and 24 healthy controls using Illumina Methylation array chips.

Results: We identified 190 significantly differentially methylated CpG sites across 190 distinct genes related to pain sensitization in HS, including 167 hypomethylated and 23 hypermethylated sites. These genes involve various functions such as ion channels, oxidative stress, cytokines, suicide, Autophagy-related, Neurotransmitters, impulsivity, telomere length, circadian rhythm, and glucose metabolism. Gene ontology and pathway enrichment analysis highlighted their involvement in 43 pathways (FDR P-values ≤0.05), including Calcium signaling, Cocaine addiction, Nicotine addiction, Oxytocin signaling, and Glutamatergic synapse.

Discussion: The study identified several differentially methylated genes involved in pain, which could serve as biomarkers and therapeutic targets. Understanding the epigenetic regulation of these genes is crucial for developing personalized pain management interventions.



3000209 - The Prevalence of Hidradenitis Suppurativa in Canada: Results from the Global HS Atlas Study

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Background: The Global Hidradenitis Suppurativa Atlas is an international, multicentre collaborative study that will provide globally comparable epidemiological data on hidradenitis suppurativa (HS).

Objective: The purpose of this study is to determine the prevalence of HS in Canada and to provide internationally comparable data on the prevalence and characteristics of HS in the general population.

Method: Healthy adults who accompanied patients undergoing care at Beacon Dermatology in Calgary, AB, Canada were prospectively recruited between November 2023 and May 2024. Participants completed a survey on their demographics and indicated whether they had 2 or more recurrent 'boils' or abscesses within the preceding 6 months. Participants with a positive HS symptom questionnaire and a randomly selected 10% of negative symptom questionnaire participants subsequently underwent clinical examination with a dermatologist.

Results: Five hundred participants were prospectively enrolled and 489 participants were included in the final analysis. Overall, 3.5% (n=17/489) of participants were diagnosed with HS after clinical assessment. The HS group had a statistically greater proportion of females and current smokers and a higher mean BMI than the control group (p LESS THAN 0.05). The sensitivity and specificity of the HS symptom questionnaire were 94.12% and 99.58%, respectively.

Discussion: The HS symptom questionnaire showed a high sensitivity and specificity for predicting a clinical diagnosis of HS. Notably, HS is more prevalent in Canada than other more well-known and extensively researched skin disorders, such as psoriasis. This study supports the need for increased investment in clinical care and research to better support the large number of patients living with HS in Canada.



3000219 - Vaping and Cannabis Use Among Hidradenitis Suppurativa Patients <u>Teja Mallela¹</u>, Rayad Shams², Christopher Sayed³

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Background: Although prior research has associated cigarette smoking with hidradenitis suppurativa (HS), the prevalence of vaping and cannabis use within this population has been inadequately explored.

Objective: We sought to assess the use of vaping devices and cannabis in HS patients and patient perception of whether usage affected their HS symptoms.

Method: Adult patients with HS seen at the University of North Carolina Department of Dermatology completed a survey asking about various aspects of their vaping and cannabis use.

Results: A total of 93 adult patients with HS, predominantly female (68%) and black (60%), completed the survey. 13 patients endorsed being current or former vapers with an average vaping duration of 2.9 years. Among them, the majority (61%) vaped daily or almost daily. 69% of vaping patients had HS symptoms arise over two years before they began vaping, and 15% had HS symptoms occur over two years after they began vaping. Most patients stated that vaping did not worsen their HS symptoms (46%) or was unclear (53%). 23 of the 93 HS patients indicated that they were current or former cannabis users with an average duration of cannabis use of 9 years. 87% of these patients stated they used cannabis at least once a week or more. Similarly, most patients believed cannabis use did not affect their HS symptoms (48%) or was unclear (52%).

Discussion: Our study shows that vaping and cannabis use were prevalent among HS patients, and patients perceived their impact on HS symptoms as minimal or unclear.



3000239 - Food Insecurity in Hidradenitis Suppurativa: An All of Us Research Program Analysis

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Background: Hidradenitis suppurativa (HS) is associated with obesity and low socioeconomic status. Defined as a household-level economic and social condition of limited or uncertain access to adequate food, food insecurity is associated with a higher likelihood of having a chronic inflammatory health condition.

Objective: This cross-sectional study was undertaken to assess whether an association exists between HS and food insecurity.

Method: We performed secondary analysis of a cross-sectional survey of individuals 18 years and older registered in the National Institutes of Health's All of Us Research Program in May 2024. The study sample was limited to those who had completed the Children's HealthWatch Hunger Vital Sign food insecurity screening survey, validated for use in adults in 2017. HS status was based on ICD-9/10 diagnosis code (705.83 or L73.2). Multivariable logistic regression was used to characterize the association between HS diagnosis and food security status, adjusting for sex, race and ethnicity, age, and income.

Results: Among participants with HS, 37/134 (27.6%) screened positive for food insecurity. In comparison, among those without HS, 6,278/56,967 (11%) screened positive. In an adjusted multivariable logistic regression, HS was associated with significantly higher odds of food insecurity (OR: 1.7, 95% CI: 1.09-2.6).

Discussion: Study results demonstrated a significant association between HS and food insecurity. Further research is needed to understand the specific mechanisms mediating this relationship. The study highlights an opportunity for dermatologists to take an active role in screening for food insecurity in patients with HS and in providing resources, as necessary.



3000240 - Association of Sweet Syndrome (Neutrophilic Dermatosis) in Patients with Hidradenitis Suppurativa: A Population Study in the Trinetx Research Database <u>Racha Cherradi¹</u>, Abigail Medford¹, Rashwan Alameddine¹, Annika Silfvast-Kaiser²

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Background: This report explores the association between Hidradenitis Suppurativa (HS) and Sweet Syndrome (SS). HS is a chronic inflammatory skin disease affecting intertriginous areas and often cooccurs with other skin conditions, including wound infections and squamous cell carcinoma. SS is a rare autoimmune disorder marked by sudden fever and tender skin lesions.

Objective: Case series by Jain et al. and Garcia et al. have suggested a potential link between HS and SS, prompting our investigation into this association using data from 208,926 HS patients in the TriNetx database.

Method: Propensity score matching was employed to match HS patients with controls based on gender, race/ethnicity, and relevant comorbidities. All ages were included. The relationship between HS and SS was evaluated through Chi-square tests and risk/odds ratios calculation with 95% confidence intervals (CI).

Results: Patients with HS (N=208,926) have a 19% increased risk of developing SS compared to controls (N=208,655), with an odds ratio of 1.191 (95% CI: 1.083-1.309; p=0.003).

Discussion: The association between HS and SS is likely due to elevated Tumor Necrosis Factoralpha (TNF-alpha) levels in HS, which predispose individuals to immune-mediated skin conditions. Shared mechanisms, including inflammasome activation and increased proinflammatory cytokines (IL-1beta and IL-17), reinforce this connection (Darji et al.; Lima et al.). Clinicians can use this knowledge to consider SS as a potential comorbidity, leading to earlier detection and more effective management of both conditions.



3000242 - Insights into Hidradenitis Suppurativa (HS) Burden across the United States since 2015

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Background: No study has investigated the growing burden of HS in the U.S. since 2015.

Objective: To identify the trends in HS incidence and prevalence among patients in the United States between 2015 and 2023 across different demographics.

Method: We obtained prevalence and incidence data from 2015 to 2023 from the TriNetX database.

Results: When evaluating incidence by age, children ages 5-9 saw the highest increase at 157%, followed by ages 20-24 at 129.1%. Incidence was highest in 2023 among ages 25-29 at 0.0022%. When evaluating prevalence over time, ages 60-64 saw the highest increase at 243.6%. Prevalence was highest in 2023 among ages 30-34 at 0.0135%, in African Americans at 0.0129%, and among

women at 0.008%. Gender disparities were also evident. Women showed a 108.3% increase in incidence and a 188.4% increase in prevalence, while men showed a 78% and 165.8% increase in incidence and prevalence, respectively. When evaluating race, African Americans showed the smallest increase in prevalence at 72.5%, while Native Hawaiian/ Pacific Islanders showed the highest increase in prevalence at 287.8%.

Discussion: Our analysis reveals variations in HS incidence and prevalence across different demographics. Children aged 5-9 experienced the highest increase in incidence, indicating a rising concern. Adults aged 60-64 saw the highest increase in prevalence, underscoring the need to monitor older populations. Native Hawaiian/Other Pacific Islanders had the highest prevalence increase, highlighting racial disparities and the need for tailored public health interventions.



3000243 - Steatocystoma Multiplex as an Association of Hidradenitis Suppurativa: A Systematic Review

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Background: A possible association between hidradenitis suppurativa (HS) (deep-seated nodules, abscesses, and sinus tracts) and steatocystoma multiplex (SM) (sebaceous cysts coalescing in pilosebaceous-rich areas) was first described in 1976.

Objective: No current literature summarizes cases of patients with both diseases. We present a systematic review of the documented patients with both HS and SM.

Method: Of 146 articles regarding HS and SM identified in three databases, 5 articles identifying 14 patients were analyzed in this study.

Results: HS was the initial presentation in 64.3% of cases. Among the total, 50% presented with HS at Hurley Stage III. Only 2 patients (14.3%) exhibited follicular tetrad characteristics. Most patients with reported BMI were normal (18.5-24.9) (42.9%). Additionally, 50% of patients were never-smokers.

Discussion: Advanced genotyping has identified pathogenic mutations in the keratin 17 (KRT17) gene as markers for SM. It has been proposed that pleiotropic phenotype presentations in KRT17 mutations may suggest a potential link between the two conditions, especially in familial cases. There is a single case of KRT17 mutation in a patient with HS without SM. Providers should consider SM in patients with cystic HS, particularly in atypical areas. Another consideration is treatment, as three included patients found significant improvement in both conditions with a weekly 40mg adalimumab course. Limitations include small sample size, and heterogenic data. Given the small number of existing cases, copresentation of these conditions is likely coincidental, but further research on the genetic factors, clinical presentations, and treatment optimization may be beneficial for patients with HS and SM.



3000244 - Association between Skin-Related Quality of Life and Race in Patients with Hidradenitis Suppurativa

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Background: The evaluation of life impact in hidradenitis suppurativa (HS) patients with high-quality evidence is critical to understanding potential differences of disease burden based on race.

Objective: To compare patient-reported quality of life at baseline between White and Black patients in two Phase 3 clinical trials of HS patients using the validated Dermatology Life Quality Index (DLQI).

Method: Pooled analysis of baseline data from the PIONEER I and II trials of adalimumab for HS. Observed mean DLQI score at baseline was compared between Black and White patients. Multiple linear regression was used to compare mean DLQI at baseline between White and Black patients while adjusting for age, sex, smoking status, baseline abscess/nodule count, and baseline draining fistula count.

Results: Among 90 White patients and 57 Black patients in PIONEER I, mean (SD) baseline DLQI was 15.6 (6.3) and 18.5 (6.4), respectively (difference 2.9; 95% CI 0.8, 5.0). When adjusting for demographics, lesion counts, and smoking, the mean difference (Black minus White) was 3.5 (95% CI 1.3, 5.8). Among 71 White patients and 23 Black patients in PIONEER II, mean (SD) baseline DLQI was 15.8 (7.5) and 17.3 (7.9), respectively (difference 1.6; 95% CI -2.1, 5.0). Adjusted mean difference was 1.9 (95% CI -1.8, 5.6). Using fixed-effect inverse-variance weighted meta-analysis, the pooled mean DLQI difference from both studies after covariate adjustment was 3.1 (95% CI 1.2, 5.0).

Discussion: Black patients with moderate to severe HS experienced lower skin-related quality of life compared to white patients with similar disease severity.



3000259 - Breakthrough COVID-19 Infections in Vaccinated Hidradenitis Suppurativa Veterans on Biologics <u>Jacqueline Breunig</u>¹, Joyce Cheng, MD, MHS¹, Laura Romero, MD¹

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Background: Durability and efficacy of COVID-19 vaccinations in hidradenitis suppurativa (HS) patients on biologics remains unclear. Immunity waning 6 months post-vaccination has been reported in immune-mediated inflammatory conditions, but data on HS is limited.

Objective: This national retrospective cohort study assessed COVID-19 vaccine outcomes in HS patients on biologics by analyzing clinical parameters of breakthrough infections (BTIs).

Method: COVID-19 BTIs were studied in COVID-vaccinated US Department of Veterans Affairs (VA) patients with HS diagnosis from 2017-2023. 1,687 veterans on biologics were compared to 2,917 veterans on neither biologics nor immunosuppressants (controls).

Results: Rates of COVID-19 BTI were 8.8% in HS patients on biologics and 12.6% in control patients (HR = 0.70; p LESS THAN 0.00001). Mean time from vaccine to BTI was significantly lower in HS
patients on biologics compared to controls (298 days versus 258 days; p=0.049). BTI severity 30 days from COVID-19 positive date was similar between groups. Control patients had higher rates of acute respiratory failure. Distribution in gender, ethnicity, smoking status, and overall health status (Charleston Comorbidity Index) was similar between groups. Patients on biologics were younger (p=0.003) but had higher asthma rates (p=0.033) and body mass index (p=0.005).

Discussion: This is the largest primary study to date assessing COVID-19 vaccine outcomes in HS patients on biologics. Breakthrough infection clinical parameters in this study do not support reduced efficacy or durability of COVID-19 vaccination in HS patients on biologics. Examination of COVID-19 breakthrough infections may inform our understanding of COVID-19 vaccine outcomes and guide future vaccination protocols.



3000275 - Hidradenitis Suppurativa and Vulvar Lichen Sclerosus: A Case Series <u>Sydney Martin¹</u>, Miranda Yu¹, Julia M. Riley¹, Kelsey S. Flood¹

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Background: Hidradenitis Suppurativa (HS) is a chronic inflammatory skin disease associated with many cutaneous comorbidities, including acne, dissecting cellulitis of the scalp, pilonidal cysts, and pyoderma gangrenosum. Although there is a plethora of literature on HS comorbidities, the association between HS and vulvar lichen sclerosus (VLS) needs further investigation. To date, two cases have been reported of HS and VLS in Caucasian women in their 4th to 6th decade of life.

Objective: This study describes a series of 29 women with HS and VLS.

Method: A retrospective review was performed of 29 female patients diagnosed with HS, identified by ICD-10 code L73.2, and comorbid VLS, identified by ICD-10 code L90.0, who presented to Northwestern Dermatology between October 2015 - December 2023.

Results: Out of 29 female patients, 69.0% identified as White, 10.3% Black, 3.4% Hispanic, and 17.3% declined to respond. The mean age was 57.4 years old with an average BMI of 33.3. HS locations included the groin (65.5%), axilla (51.7%), vulva (17.2%), buttock (17.2%) and abdomen (13.8%). The majority of patients were either diagnosed with HS first (14/29) or VLS simultaneously (6/29). For the 14 diagnosed with HS first, the average time between HS and VLS diagnosis was 4.5 years.

Discussion: We present a cohort of patients with HS and VLS, two chronic inflammatory conditions that often present unique challenges in diagnosis and management. Providers caring for patients with HS may consider screening for VLS. This is especially pertinent as both diseases are associated with an increased risk of cutaneous squamous cell carcinoma.



3000278 - Overall and subgroup prevalences of non-infectious uveitis in patients with hidradenitis suppurativa

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Background: Information on uveitis among patients with hidradenitis suppurativa (HS) is limited.

Objective: To compare prevalence of non-infectious uveitis (NIU) among patients with and without HS.

Method: Cross-sectional study among adults identified from a United States clinical database (Explorys) between January 1, 2017, and December 31, 2019. Primary outcome was diagnosis of NIU. Prevalence of NIU in patients with and without HS was compared using logistic regression, adjusting for demographics, body mass index, smoking status, and comorbidities associated with uveitis.

Results: Prevalence of NIU was 0.70% (237/33971) among HS patients and 0.34% (4144/1201187) among non-HS controls [Odds Ratio (OR) 2.03; 95% CI 1.78-2.31]. Prevalence was nearly three times higher for Black compared to White (1.24% vs. 0.46%) HS patients. Prevalence of NIU was higher with increasing age (1.30% in those aged 70+) and among HS patients having at least one NIU-associated comorbidity (1.16%). In the fully adjusted model, HS patients had 1.49 (95% CI 1.30-1.71) times higher odds of NIU compared to controls.

Discussion: NIU was more common in HS patients than controls even when accounting for shared risk factors. Screening may be warranted in symptomatic patients.



3000293 - Understanding Comorbidity of Hidradenitis Suppurativa and Crohn's Disease Beyond Female Predominance

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Background: Reports have suggested a prevalence of comorbidity of Hidradenitis Suppurativa (HS) and Crohn's Disease (CD). However, HS and CD are both more common in women. Women outnumber men with HS by about 3 to 1, and with CD by about a 1.6 female/male ratio.

Objective: The purpose of our study was to evaluate potential similarities in the pathogenesis of HS and CD to identify factors other than gender which may be underlying factors of comorbidity to rule out coincidence of female predominance.

Method: We conducted a literature review using the PubMed database. The search criteria involved the parameters "hidradenitis suppurativa" AND "Crohn's disease" resulting in 124 publications between 2013-2024, of which 41 discussed associated data between HS and CD.

Results: The literature review revealed several factors independent of gender. Genetic polymorphism in NOD2 was significant in HS and CD. Both display immune system dysregulation due to chronic inflammation and aberrant cytokine profiles (TNF- α , IL-1, IL-17). Treatment responses to BAs such as TNF inhibitors share therapeutic pathways. Both generally manifest in late adolescence to early adulthood.

Discussion: The similar age of prevalence suggests that environmental and developmental factors during adolescence may contribute to the development of both conditions. However, while hormonal influences do play a role, they do not entirely explain comorbidity. Genetic predispositions and immune

dysregulation are important factors linking HS and CD. The overlap in genetic susceptibility and chronic inflammation in both conditions point to common pathophysiological mechanisms, further supported by biologic treatments that target shared inflammatory pathways.



3000303 - Clinical Description of Pediatric Patients with Hidradenitis Suppurativa and Pyoderma Gangrenosum

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Background: Hidradenitis suppurativa (HS) and pyoderma gangrenosum (PG) are dermatologic conditions affecting 2% and 0.00063% of the population respectively (Cotton et al., 2023; George et al., 2023). Despite their low prevalence, they can co-exist.

Objective: To describe the clinical characteristics of pediatric patients diagnosed with HS who have comorbid PG.

Method: A retrospective chart review of patients aged 3-17 years at The Hospital for Sick Children between 01 Jan 2015 and 01 Feb 2023 with clinical diagnoses of HS and PG.

Results: Of 122 patients diagnosed with HS, 7 (5.7%) also had PG. Among these patients, 5 (71.4%) were male. The average age of onset for HS and PG was 12.1 and 15.7 years, respectively. The most common concurrent diagnoses were anxiety, depression, and acne conglobata, each affecting 3 patients (42.9%). All 7 patients received incision and drainage or intralesional triamcinolone, 6 received biologic(s), 3 received systemic immunomodulators, and 3 received IV ertapenem.

Discussion: Although PG is rare in children, 7 HS patients in our cohort had PG. Moreover, the male predominance (71.4%) contrasts with previous reports of female predominance with 85% and 76% of HS and PG patients being female, respectively (Binus et al., 2011; Liy-Wong et al., 2021). Obesity, commonly reported as the most common comorbidity in pediatric HS patients (32.5-68.7%) was lower in this cohort (28.5%) (Cotton et al., 2023). These findings suggest that patients with comorbid HS and PG may present with unique patient characteristics and comorbidities and require a different treatment approach.



3000305 - Incidence of Depression and Anxiety after Hidradenitis Suppurativa Diagnosis: A Retrospective Cohort Study

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Background: Depression and anxiety are highly prevalent comorbidities in patients with hidradenitis suppurativa (HS), likely due to HS's debilitating signs and symptoms and its significant impact on quality of life.

Objective: To observe the 1-year incidence of depression and anxiety after a diagnosis of HS across different races. A secondary aim was to determine an association between HS disease severity and the incidence of depression and anxiety.

Method: This retrospective cohort study used Kaiser Permanente Southern California's (KP-SoCal) electronic health record (EHR) data. Inclusion criteria: first-time HS diagnosis, KP membership, and age ≥18. Exclusion criteria: pre-existing depression or anxiety.

Results: A logistic regression was performed to determine the association between race and 1-year incident depression and/or anxiety diagnosis, controlling for age, sex, and tobacco use (models controlling for other covariates/effect modifiers did not change the association). Females had 95% higher odds of depression/anxiety (OR = 1.95, p LESS THAN 0.001), and individuals aged 30-39 had 37% higher odds compared to those aged 18-29 (OR = 1.37, p = 0.052). Asian/Pacific Islanders (OR = 0.48, p = 0.023) and Black patients (OR = 0.65, p = 0.19) had lower odds of diagnosis compared to White patients. Tobacco use was linked to 78% higher odds of depression/anxiety (OR = 1.78, p LESS THAN 0.001), but severe HS requiring Humira was not significantly associated with these outcomes (p = 0.310).

Discussion: This study addresses the research gap on the incidence of depression and anxiety in HS patients and may inform screening guidelines in dermatology clinics.



3000309 - Characterizing Hidradenitis Suppurativa: Retrospective Epidemiological Insights from South Florida

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Background: The prevalence of hidradenitis suppurativa (HS) continues to be controversial, as it's influenced by variations in data collection methodologies and global region. In the U.S., HS prevalence is 0.1%, with the highest rates amongst 20-40 year-olds and African American populations, with a female-to-male ratio of 3:1. Importantly, race and ethnicity are under-reported in HS studies, emphasizing the need for understanding the epidemiology of communities, especially with the trend towards precision dermatology. Here, we present one of the largest single-center epidemiology studies of HS in the nation.

Objective: Describe the unique demographic and clinical characteristics of the HS population in South Florida.

Method: A retrospective review of electronic medical records (EMRs) was conducted on adult patients with HS, using International Classification of Diseases codes, extracted from the University of Miami Hospital and Clinics (January 2010-December 2023). Data extraction included demographics and clinical information.

Results: Three thousand five hundred fifteen EMRs of adult patients with HS were identified. The average age of patients was 41.3±15.7 years, with a female-to-male ratio of 2.2:1. The majority of patients were White (60.4%), and 31.7% identified as Black or African American. Importantly, nearly half of the patients identified as Hispanic/Latino (47.0%). Most patients (66.1%) were either overweight or obese, and 25.3% reported being active or former smokers.

Discussion: HS is a debilitating disease that often poses treatment challenges, as disease progression, symptom control, and comorbidities must all be managed. This study emphasizes the unique epidemiological landscape within South Florida, which must be considered as we move towards precision dermatology.



3000314 - Body of Mass Index trends among Hidradenitis Suppurativa Patients before and after symptom onset

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Background: Hidradenitis suppurativa (HS) has been associated with obesity however this relationship's directionality remains unclear. Elevated BMI may induce HS symptoms, or HS may cause weight gain due to HS limiting mobility and disease-related psychosocial impact.

Objective: Our study investigates BMI changes in HS patients seen at the UNC Dermatology HS clinic before and after symptom onset.

Method: Available BMIs and demographic data were collected from the EHR. Patients were eligible if they had BMI data available at least 12 months pre and post-symptom onset.

Results: A total of 1552 BMIs were collected from 234, predominantly female (74.8%), and black (56%) or white (40.6%) patients. Mean BMI was 26.0 kg/m2 GREATER THAN 36 months, 28.1 kg/m2 25-36 months, 29.7 kg/m2 13-24 months, and 29.8 kg/m2 1-12 months before onset. In contrast, mean BMI was 30.7 kg/m2 1-12 months, 31.8 kg/m2 13-24 months, 32.9 kg/m2 25-36 months, and 34.3 kg/m2 GREATER THAN 36 months post-onset. Before onset, 37.7% of BMIs were normal, 21.0% overweight, 23.4% obese Class-I, 10.2% obese Class-II, and 7.6% obese Class-III. After onset, 19.2% were normal, 17.0% overweight, 25.7% obese Class-I, 19.4% obese Class-II, and 18.7% obese Class-III. These differences were statistically significant on two-proportion z test for the normal weight (z=8.1, p LESS THAN .00001), obese Class-II (z=-4.6, p LESS THAN .00001), and Class-III (z=-5.9, p LESS THAN .00001) groups.

Discussion: Our data demonstrates that although obesity was prevalent among HS patients, a large proportion of BMIs prior to HS onset were normal. Additionally, the proportion of BMIs in the obese Class-II and Class-III range doubled compared to pre-onset BMI.



3000315 - Associations between Hidradenitis Suppurativa Comorbidities and Anatomical Area-Specific Excision

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Background: Hidradenitis suppurativa (HS) may require excision, an invasive surgical approach that is used for severe or chronic/advanced cases.

Objective: Retrospectively explore associations between HS comorbidities and anatomical area-specific excision.

Method: Data was obtained on July 15, 2024, from the TriNetX Research network, which provided access to electronic medical records from 92 healthcare organizations. Patients diagnosed with HS were designated into exclusive cohorts with the following comorbidities (within 1 year of HS diagnosis): obesity, Crohn's disease, and pilonidal cysts. Control cohorts included patients without comorbidities. Comparative analyses studied hazard ratios (HR), with 95% confidence intervals (CI), of axillary,

inguinal, and perianal/perineal/umbilical excision from 1-day post-HS diagnosis. Cohorts were propensity-matched for age at treatment, ethnicity, race, and gender.

Results: Obesity was associated with a significantly higher rate of axillary excision compared to nonobesity (HR [95% CI] = 0.778 [0.72, 0.84]). Similarly, individuals with Crohn's disease exhibited significantly higher rates of inguinal (HR [95% CI] = 0.566 [0.381, 0.84]) and perianal/perineal/umbilical (HR [95% CI] = 0.288 [0.194, 0.427]) excision compared to those without Crohn's. Furthermore, pilonidal cysts were linked to significantly increased rates of axillary (HR [95% CI] = 0.47 [0.35, 0.63]), inguinal (HR [95% CI] = 0.382 [0.26, 0.56]), and perianal/perineal/umbilical (HR [95% CI] = 0.191 [0.124, 0.294]) excision compared to the absence of pilonidal cysts.

Discussion: This research highlights the association between HS comorbidities and excision of three different anatomical sites. This can inform dermatologists about how patients with various comorbidities might later require excision at a correlated anatomical site.



3000317 - Exploring the Link between HS and HIV: A Ten Year Retrospective Analysis <u>Safiya Haque</u>¹, Victoria Jiminez², Caroline Garraway³, Anna Riess³, Delaney Ding⁴, Katherine Hunt³, Tiffany Mayo³

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Background: Hidradenitis suppurativa (HS) is a chronic, inflammatory skin condition often involving intertriginous regions of the body. Few studies are available in the literature regarding patients with both HS and HIV. Higher rates of HS have been reported among HIV populations, possibly due to immunosuppression.

Objective: This study aims to elucidate the relationship between HS and HIV for this unique cohort better to identify characteristics of HS in individuals with HIV.

Method: A retrospective cohort of patients diagnosed with both human immunodeficiency virus and hidradenitis suppurativa from 2013 to 2023 was identified. Data was stored in a HIPAA-secure database, and SPSS was used for statistics.

Results: The cohort consisted of ninety patients with an average age of 44 and were mainly male (60%) and Black or African American (82%). Most were diagnosed with HIV before their HS diagnosis (78%), and of those, 89% were on antiretroviral therapy (ART) at the time of their HS diagnosis. Therapies for HS used most frequently were topicals (88%), intralesional steroid injections (19%), and oral antibiotics (90%). Biologics were utilized in 15 patients (17%). Fifty-two patients had other dermatologic conditions in addition to HS.

Discussion: Due to HIV causing immunosuppression and proposed worsening of co-existing inflammatory conditions, evaluating the incidence and severity of HS in this population is essential. We aim to provide data regarding the comorbidities, infections, and HS presentations to add knowledge regarding possible HS-HIV relationships and treatment options.



3000318 - Epidemiology of Pilonidal Disease in Hidradenitis Suppurativa in a Predominantly Hispanic Population

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Background: HS and pilonidal disease (PD) are both inflammatory skin conditions triggered by follicular occlusion. PD presents as cystic lesions secondary to inflammation of the sacrococcygeal sinus and is a frequent comorbidity in HS. Limited data explores the epidemiology of this association.

Objective: To describe the epidemiology of PD in HS patients in a single-center study with a large Hispanic population.

Method: All medical records of adults with HS (January 2010-December 2023) from the University of Miami Hospital and Clinics database and retrospectively reviewed. Sex, race, ethnicity, smoking status and BMI were analyzed in relation to PD using bivariate and multivariate statistics.

Results: Of the 3,515 records reviewed, 47.0% were Hispanic and 69.2% were female. 4.0% of patients had comorbid PD. Overall, on bivariate analysis, female sex (p LESS THAN 0.001), race (p=0.031), and ethnicity (p=0.031) were significantly associated with increased PD. Only female sex was independently associated with higher PD prevalence (Odds-Ratio [OR]: 2.99; 95%-Confidence-Interval [95%-CI]: 2.09-4.27; p LESS THAN 0.001) on multivariable analysis.

Stratifying for ethnicity, PD was more prevalent in non-Hispanic (5.0%) than in Hispanic: 3.9%) patients with HS. However, the association of female sex with PD was stronger in Hispanic populations (OR: 3.11; 95%-CI: 1.91-5.05; p LESS THAN 0.001) than in non-Hispanics (OR: 2.742; 95%-CI: 1.60-4.71, p LESS THAN 0.001].

Discussion: The higher risk of PD in females with HS differs from the male-predominant ratio of PD in the general US population and is more pronounced in Hispanic populations. The etiology of this relationship is unclear and requires further investigation. Personalized HS management should include heightened suspicion for PD in Hispanic females.



3000322 - Social Vulnerability Index Does Not Predict Severity of Hidradenitis beyond Patient Level Variables

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Background: The risk factors for severe Hidradenitis suppurativa (HS) are still not fully explored, especially for environmental effects.

Objective: We sought to evaluate demographic and socio-economic variables associated with severe disease in a large cohort of well characterized patients with HS.

Method: Patients with HS seen at Indiana University Health from1/2019 --12/2023 were identified from the electronic medical record (EMR). Demographic, socio-economic and clinical data were collected. Cases were classified as severe based on Hurley staging (stage III) or necessity of biologics and/or

surgery. The CDC's Social Vulnerability Index (SVI), a measure of community level stressors, was calculated for a patient's census tract/address. Geocoding of patient addresses was used to correlate measures of each geographic variable per case census tract.

Results: The study cohort consisted of 651 patients.

There were 108 patients with severe HS (Mean (sd) age: 40.5 ± 13.6 years, Female: 67 (62%), Caucasian 56 (51.9%), Hispanic/Latinx: 9 (8.3%).

Increasing age had significantly higher risk (OR= 1.01 [95% CI: 1.00-1.03], p=0.012), but female sex (OR=0.39 [95% CI: 0.25-0.62], P LESS THAN 0.01) and those with Medicare (OR=0.54 [95% CI: 0.30-0.99, P=0.04)], P LESS THAN 0.01) had significantly lower risk for severe disease.

SVI had no significant association with severity (OR=1.19 [95% CI: 0.63-2.27, P=0.58)].

Discussion: Our results indicate SVI is not a reliable predictor for severe HS. Future studies are needed to validate if SVI can modify disease severity.



3000328 - Atypical Morphology in Hidradenitis Suppurativa May Predict Cutaneous Squamous Cell Carcinoma

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Background: Cutaneous squamous cell carcinoma (cSCC) associated with high rates of metastasis and disease-specific mortality is a rare and typically aggressive complication of advanced hidradenitis suppurativa (HS).1 It is difficult to distinguish cSCC from highly inflammatory HS which makes early detection a challenge. We present a case of cSCC arising in long-standing, advanced and under-treated HS that suggests how atypical morphology may predict malignancy.

Objective: Increase early recognition of cSCC in long-standing HS by identifying highly exophytic granulation tissue covered by fibrinopurulent exudate.

Method: A 64-year-old African American female with HS of 45 years duration presented to the Weill Cornell Dermatology Center for Hidradenitis Suppurativa. During the initial consultation, inflammatory disease was limited to the upper inner thighs. Adjacent to a network of sinus tracts on one thigh there was highly exophytic granulation tissue covered in part by a fibrinopurulent exudate. A biopsy revealed atypical endophytic squamous proliferation consistent with a moderately-differentiated, invasive squamous cell carcinoma.

Results: The narrative and clinical photos in our patient were compared to 4 of 7 cases with photographic images from a recent published report.1 Distinctive exophytic granulation tissue and fibrinopurulent exudate was present in all clinical images.

Discussion: Exophytic granulation tissue with or without overlying fibrinopurulent exudation appears highly characteristic of all cutaneous squamous cell carcinomas arising in long-standing HS. On clinical examination these findings are quite distinct from typical HS lesions (nodules, abscesses, sinus tracts ["tunnels"]), as well as atypical morphologies (lymphedema, ulcers, granulating wounds); and, should trigger multiple skin biopsies to diagnose cSCC and enable early intervention.



3000343 - Isotretinoin: A Potential Trigger for Acne Conglobata in Two Patients with Hidradenitis Suppurativa

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Background: Hidradenitis suppurativa (HS) is a chronic, debilitating skin disorder of follicular biology. Acne conglobata (AC) or nodulocystic acne may present similarly and is often treated with isotretinoin. Isotretinoin has been associated with flares of HS(1) and paradoxical development of nodulocystic acne.(2) We describe two cases of AC that was associated with isotretinoin therapy in the setting of HS.

Objective: To investigate isotretinoin use in patients with HS as a potential trigger for AC.

Method: Case presentations:

Case 1 was a 24-year-old male with a diagnosis of HS, HS-physician global assessment (HS-PGA) 3, and nodulocystic acne. Isotretinoin, 140 mg (1.5 mg/kg) with dinner meal was initiated. The development of severe acne conglobata led to withdrawal of isotretinoin and a slow tapering course of prednisone 1mg/kg for a period of 6-8 weeks.

Case 2 was a 33-year-old male with a diagnosis of HS, HS-PGA 2 and nodulocystic acne. Isotretinoin 130 mg (1.5 mg/kg) for 6 months was associated with improvement of cystic acne; however, severe acne conglobata developed shortly after isotretinoin was discontinued.

Results: NA

Discussion: We report two cases of HS in which isotretinoin therapy for nodulocystic acne paradoxically triggered acne conglobata. These findings suggest that isotretinoin should be used with caution in patients with HS. Larger studies are needed to further confirm these findings.

(1) Gallagher CG, Kirthi SK, Cotter CC, Revuz JR, Tobin AMT. Could isotretinoin flare hidradenitis suppurativa? A case series. Clin Exp Dermatol. 2019 Oct;44(7):777-780. doi: 10.1111/ced.13944. Epub 2019 Mar 22. PMID: 30719727.



3000378 - Differences in Patient Attributes and Perception of Dairy-Induced Hidradenitis Suppurativa Flares

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Background: Multiple studies implicate dairy as contributing to flares of hidradenitis suppurativa (HS). It is proposed that the high leucine levels in dairy worsen HS by activating insulin and insulin-like growth

factor 1 (IGF1) receptors. This stimulates the mTOR pathway, which is upregulated in HS. We hypothesized patients with insulin resistance (IR) might be less likely to have perceived dairy-induced flares due to baseline elevations of insulin and IGF1, and (2) patients with autoimmune comorbidities would be less likely to have dairy-induced flares due to alternative drivers of HS pathogenesis.

Objective: Evaluate differences in patient demographics, HS severity, or patient comorbidities, specifically IR or autoimmune diseases, between patients with and without perceived dairy-induced HS flares.

Method: 152 patients from the Minnesota HS Registry were stratified by patient perception of dairyinduced flares. Information was collected on age, assigned sex at birth (ASAB), Hurley stage, IR (diabetes mellitus type 2/pre-diabetes/polycystic ovarian syndrome), and autoimmune comorbidities (pyoderma gangrenosum/inflammatory arthritis/inflammatory bowel disease). Two-sample t-test and Chi-square analyses determined differences in perceived dairy-induced flares among groups (α =.05).

Results: Twenty-four patients (19%) had perceived dairy-induced HS flares. There was a significant difference in age (p=0.009) between patients with (\bar{x} =35;SD=9) and without (\bar{x} =41;SD=12) perceived dairy-induced HS flares. The frequency of patients with perceived dairy-induced flares did not differ significantly for ASAB, IR, autoimmune comorbidities, or Hurley I-III.

Discussion: Our analysis detected a statistically significant difference between age and perceived dairy-induced flares, although the absolute difference was clinically insignificant. We found no statistically significant differences across other demographic groups, comorbidities or Hurley stages.



3000380 - Hidradenitis Suppurativa and Educational Attainment: Findings from the All of Us Research Program

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Background: Hidradenitis suppurativa (HS) is associated with reduced socioeconomic status (SES) and related SES markers including unemployment and lower income levels. HS tends to begin in adolescence or early adulthood, yet few large studies have investigated the relationship between HS and educational attainment.

Objective: This cross-sectional study evaluated the association between HS and educational attainment.

Method: We analyzed a cross-sectional survey of individuals ≥18 years old registered in the National Institutes of Health's All of Us Research Program who reported educational attainment levels. HS diagnosis was defined by ICD-9/10 diagnosis code and educational status categorized as some high school, completed high school, some college, or completed college. Multinomial logistic regression was used to explore the association after adjusting for sex, age, and race with completed college as the reference category.

Results: The study sample consisted of 1,605 HS participants and 395,300 non-HS participants. Among HS participants, 28.4% completed college versus 45.6% among non-HS participants (p LESS THAN 0.001). HS participants were more likely than non-HS participants to complete only high school (OR: 2.09, 95% CI: 1.82-2.39). This relationship held true after adjusting for sex, age, and race (aOR: 1.47, 95% CI: 1.28-1.70). HS participants were also more likely to have only some college compared to non-HS participants (OR: 2.28, 95% CI: 2.02-2.58), including in the adjusted model (aOR: 1.78, 95% CI: 1.57-2.02).

Discussion: HS was associated with lower educational attainment, both in starting and completing college. This study highlights the need for early interventions to help individuals with HS navigate challenges during undergraduate education.



3000385 - The Incidence of Hematologic Malignancies in Patients with Hidradenitis Suppurativa: An Institutional Study

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Background: Patients with hidradenitis suppurativa (HS) have been demonstrated to have a higher risk of developing several cancers including hematologic malignancy (HM) than the general population. Detailed analysis of HM subtypes within the HS/HM cohort has not yet been formally evaluated.

Objective: To evaluate the incidence of HM subtypes within HS patients.

Method: A detailed chart review was conducted on 352 patients with HS and HM treated at Brigham and Women's Hospital, Massachusetts General Hospital, Faulkner Hospital, and Dana-Farber Cancer Institute using Mass General Brigham RPDR query from 12/1/2016-6/6/2024. 84 patients (57.1% female, 76% white) who had a confirmed diagnosis of HS by dermatology from available records; underwent wide excision and had confirmatory HS pathology; or were diagnosed with HS by at least 1 non-dermatology medical provider on at least 2 clinical encounters were ultimately included.

Results: 70.2% HS/HM patients had lymphoid or plasma cell neoplasms, including Hodgkin lymphoma (23.7%), aggressive B cell lymphoma (16.9%), SLL/CLL (11.9%), and multiple myeloma (8.5%). 29.8% HS/HM patients had myeloid neoplasms, the most common of which included acute myeloblastic leukemia (80%). The overall most common HM in patients with HS was acute myeloid leukemia (23.8%), followed by Hodgkin lymphoma (16.7%).

Discussion: As cancer screening guidelines are being developed for patients with HS, physicians should be aware of increased incidence rates of HM among this cohort and monitor patients for HM development, particularly lymphoid or plasma cell neoplasms and AML.



3000395 - Inflammatory and Metabolic Markers in Hidradenitis Suppurativa: A Preliminary Analysis of TNF-A

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Background: HS is an inflammatory disorder that disproportionately affects Black patients in the U.S. Its severity is measured by three Hurley Stages based on the extent of lesions, sinus tracts, and scarring. This study analyses TNF- α and IL-6 due to their inflammatory roles. Metabolic disorders and obesity are risk factors for HS,1 with hyperinsulinemia and hyperleptinemia linked to increased adipose tissue and hormonal resistance.

Objective: To compare levels of TNF- α between Hidradenitis Suppurativa (HS) patients of different races and Hurley Stages pending Insulin, Leptin, and IL-6 analysis.

Method: Serum samples were collected from 54 HS patients at Howard University Department of Dermatology. Of 40 analyzable ELISA samples, 6 patients were in Hurley Stage 1, 12 in Stage 2, 17 in Stage 3, and 5 lacked Hurley Stage data. One patient was Asian, 31 were Black, 3 were Hispanic, and 5 were White.

Results: Patients in Hurley Stage 2 had significantly lower TNF- α levels than those in Hurley Stage 1. TNF- α levels were similar within Black and White patients across all stages. However, White patients in Hurley Stage 3 had significantly higher TNF- α levels than Black patients across all stages. Results for other biomarkers are pending.

Discussion: This data suggests that White individuals in Hurley Stage 3 may experience more severe inflammation than Black individuals regardless of disease severity. These findings underscore the importance of studying HS across diverse demographics to better understand its pathophysiology and guide targeted therapies. Future studies should include a racially diverse sample to enhance precision healthcare.



3000398 - Severity of Hidradenitis Suppurativa Approximated Through Keyword Search Within VA Healthcare System

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Background: Large, structured datasets do not capture qualitative information, hampering the capability to classify hidradenitis suppurative (HS) severity. The VA Health Care System's database contains structured data with access to individual patient records which may allow for extraction of severity information.

Objective: Validate a methodology to approximate HS severity from a large, structured dataset.

Method: Adult patients from the VA Healthcare System diagnosed with HS using ICD-10 codes between 2011 and 2020 were identified. The date of HS diagnosis was recorded as the index date. Using a keyword search for "Hurley," we identified patients with Hurley staging at the index date. Patients were stratified into two groups: Hurley I and Hurley II-III. Patients classified as "Hurley I-II" were removed. Data was collected on the frequency of patient depression, suicidal ideation, emergency department (ED) visits, inpatient admissions, biologic prescriptions, opioid prescriptions, and death. Chi-squared and two-sample t-tests were used to evaluate differences between patients with Hurley I and Hurley II-III HS.

Results: Data from 742 (Hurley I=512; Hurley II-III=230) predominantly White (54%), male (69%), and middle-aged (46.90;SD=14) patients with HS were analyzed. Number of patients with ED visits (χ 2(2)=9.3;p LESS THAN 0.01), suicidal ideation (χ 2(1)=3.8;p=0.05), and biologic utilization (χ 2(1)=29.0;p LESS THAN 0.01) differed significantly between Hurley stage I and II-III. Number of ED visits also differed (p=0.032) between Hurley I (\bar{x} =0.01;SD=0.16) and Hurley II-III (\bar{x} =0.06;SD=0.28) HS. No differences were identified for other variables.

Discussion: The differences in healthcare utilization between patients identified as Hurley I and Hurley II-III HS support the methodology to approximate HS severity in the VA Health Care System.



3000401 - A Multi-Site Registry of Patients with Hidradenitis Suppurativa – Insights from Hs Progress

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Background: The Hidradenitis Suppurativa PRospective Observational REgistry and bioSpecimen repository (HS PROGRESS) is a multicenter hospital-based cohort study enrolling patients since 2020. Herein, we report the first findings from the baseline visit at University of California, San Francisco (UCSF).

Objective: To explore the clinical characteristics, disease course, treatment effects, and psychosocial impacts of HS in a prospective cohort of comprehensively-phenotyped HS patients.

Method: Consented subjects completed electronic surveys and underwent a comprehensive dermatologic evaluation. Patients were also offered to donate skin swabs, skin specimens, saliva, stool, blood, and/or hair samples.

Results: At UCSF, 246 patients were included. The majority identified as Hispanic (22%), White (64.6%), African American (19.5%), or Asian Indian (7.3%). Median age (IQR) was 33.9 (26.8-41.5) years, 76.4% were female, 38.8% were current or former smokers, and 15.1% were currently unemployed. Median age of disease onset was 17 (13-26) with a median diagnostic delay of 4 (1-10) years. A total of 69.5%, 59.8%, 47.6%, and 62.6% were currently affected in the groin, axilla, buttocks, or other area, respectively, and 72% had at least one monthly flare. Before attending UCSF, 88.1%, 88.2%, and 32.9% had tried topical, systemic, and biologic therapy, respectively, and 26.6% had tried at least one form of surgical intervention.

Discussion: HS PROGRESS is a national effort to characterize HS from both clinical and biological perspectives. The sustained progression of the biospecimen repository will enable future studies to explore the etiology and pathophysiology of the disease.



3000191 - Exploring the Journey to Diagnosis in Hidradenitis suppurativa: A Real-World Survey in the United States and Europe

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Background: Early diagnosis of hidradenitis suppurativa (HS) is crucial to reducing disease progression.

Objective: We explored awareness and challenges in diagnosis amongst dermatologists and their patients with HS.

Method: Data were drawn from the Adelphi Real World HS Disease Specific Programme[™], a crosssectional survey, with retrospective data collection, of dermatologists and their HS patients in Europe (France, Germany, Italy and Spain) and the United States (US) from November 2020 – April 2021. Patient agreement to statements was measured on a scale from 1 (completely disagree) to 10 (completely agree). Numerical outcomes were presented as mean[SD] and compared using t-tests. Categorical outcomes were compared using Fisher's exact tests.

Results: In total, 262 dermatologists and 565 patients responded. Time from first talking to a doctor and from first consultation to diagnosis were 1.8[4.3] vs 1.2[2.2] years, p=0.044 and 1.8[5.5] vs 1.5[3.5] years, p=0.49 for US vs European patients, respectively. Patients (54%) agreed "more needs to be done to speed up diagnosis of HS". More US dermatologists believed "increased awareness/education of patients" could facilitate early diagnosis compared to Europe (69% vs 27%, p<0.001). Conversely, "increased awareness/education of physicians" was reported by fewer US dermatologists (72% vs 88%, p=0.001). Of all physicians, 51% recommended HS support groups, however 92% of patients were not involved with any. Patients received HS information from their doctor (81%) or online (39%).

Discussion: Increased awareness and education of HS may decrease diagnostic delay. Though dermatologists recommend support groups, most patients were not involved with them, often supplementing their education online.



3000296 - Prevalence of Hidradenitis Suppurativa in Atlanta Georgia

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Background: Hidradenitis Suppurativa is a debilitating chronic inflammatory skin disease marked by diagnostic delays and variability in reported prevalence rates. Diagnostic delays in HS negatively impact patients' quality of life and can lead to disease progression, making it increasingly challenging to manage over time.

Objective: This study as part of an international Global Hidradenitis Suppurativa Atlas study aims to explore the prevalence of HS in Atlanta, Georgia.

Method: A cross-sectional study was conducted in various ambulatory care settings including the Emory University Hospital and Grady Memorial Hospital emergency departments and adult primary care clinic at The Emory Clinic. Participation was limited to one member per family, excluding those

already diagnosed with HS. Participants were adults over 18, non-pregnant, English-speaking, and able to provide consent. Adults accompanying patients were recruited and screened for HS using a validated questionnaire. Those who screened positive for HS and 10% of those who screened negative underwent a skin examination.

Results: Among 347 participants, the mean age was 48.2 (95%CI: 46.2-50.1). Of the participants, 208 (60.0%) identified as female and 139 (40.0%) as male. Racially, 130 (37.4%) were White, 188 (54.1%) were Black, 25 (7.2%) were Asian, and 4 (1.1%) were Mediterranean. Six participants (1.72%) screened positive for HS, with none previously officially diagnosed: four at Hurley Stage 1, one at Stage 2, and one at Stage 3.

Discussion: The study confirms a higher prevalence of HS than indicated by prior studies, highlighting the need for awareness within the medical community and early screening measures to combat the underdiagnosis of HS.



3000326 - A Proof of Concept for MI-Based Identification and Staging of Hidradenitis Suppurativa (HS)

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Background: Hidradenitis Suppurativa (HS) is a chronic inflammatory condition characterized by painful nodules and sinus tracts, but the average time required for diagnosis is 7 years due to resemblance to other diseases. Accurate and early detection is crucial for effective management.

Objective: This study aims to develop a machine learning-based approach for the identification of HS using convolutional neural networks (CNN) and custom algorithms.

Method: 156 HS images and 400 non-HS images were collected, preprocessed, and augmented to improve model generalization. Using transfer learning on EfficientNet-B7 CNN pretrained model with modifications of top layers, we made a binary classifier (HS vs. non-HS) capable of extracting relevant features. A custom algorithm was developed to detect, analyze, and visualize contours using a specific activation map from the CNN making it possible to mark regions of skin abnormalities and subsequent count of nodules and tracts. This information was later used to determine the HS stage using Hurley scale. CNN performance was evaluated using accuracy, precision, recall, F1-score, and ROC-AUC.

Results: The CNN achieved an accuracy of 88% with precision, recall, and F1-score metrics demonstrating robust classification performance resulting in a ROC-AUC score of 0.95. The model accurately identified 88% of HS images and 91% of non-HS images. Nodule and tract detection algorithms showed high reliability compared to dermatologist annotations.

Discussion: This proof-of-concept outcome highlighted the model's potential to facilitate HS identification and staging. Future models will focus on incorporating HS progression tracking and integration into patient facing application for early identification and management.



3000330 - Examining the Impact of Race on Hidradenitis Suppurativa Onset and Diagnosis: Insight from a Patient Survey

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Background: Despite its prevalence, epidemiological data on HS is limited, particularly concerning demographic variations.

Objective: To investigate whether race influenced the age of onset and the likelihood of an official HS diagnosis.

Method: An online survey was distributed. Overall, 1,903 respondents provided complete responses. The Fisher-Freeman-Halton exact test was used to examine the relationship between race, age of onset, and receiving an official HS diagnosis.

Results: The mean age of participants was 38.49 years and age of onset 20.2 years, with no significant relationship between race and the age of onset (p=0.077). However, a significant relationship was found between race and receiving an official HS diagnosis (p=0.007). White (93.4%, n=1251) and Hispanic (85.5%, n=166) individuals were more likely to have an official diagnosis, compared with Black, Asian, and Middle Eastern participants. In undiagnosed patients (n=142), the average duration since symptom onset was 16.5 years.

Discussion: We did not detect a significant relationship between race and age of onset, but demonstrated an impact on formal diagnosis, indicating potential disparities. We also discovered a population of self-diagnosed patients chronically managing their disease without diagnosis from a provider. Understanding the barriers to diagnosis will elucidate opportunities to reduce diagnostic delay and reach this marginalized population.



3000215 - Neutrophil Extracellular Traps in HS Skin and Serum as Target for CIT-013, a NET Targeting Therapy

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Background: Neutrophils are scarce in healthy skin but infiltrate lesions of Hidradenitis Suppurativa (HS) patients. Activated neutrophils release extracellular traps (NETs) which contribute to the pathophysiology of many immune-mediated inflammatory diseases, including HS. CIT-013, a first-inclass monoclonal antibody, targets citrullinated histones H2A and H4 in NETs and shows therapeutic efficacy in various pre-clinical models of NET-associated inflammation.

Objective: The aims of this study were to verify CIT-013's efficacy in a human model of systemic inflammation, and to validate HS as therapeutic target for CIT-013 by demonstrating the presence of NETs in HS serum and skin.

Method: CIT-013's NET-targeting potential was investigated in LPS-challenged healthy human volunteers (HVs). Citrullinated histone H3 (CitH3) was detected in HS skin by immunohistochemistry, while in HS serum NET markers including nucleosomes, calprotectin, CitH3, and CIT-013 epitope were assessed with ELISA.

Results: LPS nano-dosing in human HVs induced an increase in circulating NETs, which were eliminated by CIT-013 treatment. Furthermore, NET component CitH3 was increased in HS lesions compared to unaffected skin and was prominently present in HS-related structures such as skin tunnels. In addition, all indicated NET markers were elevated in serum of HS patients with moderate and severe disease activity compared to patients with low disease activity and HVs.

Discussion: CIT-013 shows target engagement in LPS-challenged humans. Markers of NETs are elevated in HS lesional skin biopsies and serum. Altogether, this reinforces the position of CIT-013 as a distinctive therapeutic approach for HS. CIT-013 will enter a phase 2 proof-of-concept trial in HS during 2025.



3000222 - Secukinumab Demonstrates Consistent Safety Profile in Psoriasis and Hidradenitis Suppurativa

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Background: Long-term safety of secukinumab was previously reported based on pooled data from 47 clinical trials across approved indications.

Objective: Report the updated safety profile of secukinumab in adults with plaque psoriasis (PsO) and hidradenitis suppurativa (HS).

Method: Pooled safety analysis of 43 Phase I/II/III/IV trials (PsO: 41, HS: 2) with patients who received ≥1 dose of subcutaneous secukinumab (cut-off: December 2023). Adverse events (AEs) were reported as exposure-adjusted incidence rates (EAIRs)/100 patient-years (PYs).

Results: 13,842 patients (PsO [N=12,782]; HS [N=1060]) were included. In PsO, 16.6% and 85.0% were exposed to 150-mg and 300-mg secukinumab (including every 2 [SECQ2W] and 4 weeks [SECQ4W]), respectively. In HS, all were exposed to 300-mg secukinumab (SECQ2W and SECQ4W). Most frequently reported AEs (EAIR [95% CI]) in PsO: nasopharyngitis: (22.23 [21.47, 23.01]), upper respiratory tract infection (6.11 [5.75, 6.49]). In HS: headache (19.71 [16.78, 23.00]), nasopharyngitis (14.39 [11.95, 17.19]). Incidence of paradoxical skin reactions (EAIR [95% CI]), e.g., dyshidrotic eczema, was low in PsO (0.42 [0.33, 0.52]) and HS (1.08 [0.52, 2.00]). Pyoderma gangrenosum cases were not identified. EAIR (95% CI) of serious and Candida infections in PsO: 1.52 (1.35, 1.71) and 2.93 (2.69, 3.19); in HS: 3.84 (2.67, 5.34) and 5.65 (4.21, 7.43). EAIRs/100 PYs for inflammatory bowel disease, malignancies, major adverse cardiovascular events, and suicidal ideation/behavior remained low across dosing regimens and both indications.

Discussion: Pooled analysis of 43 Phase I/II/III/IV trials demonstrated that secukinumab is well tolerated in PsO and HS. Comparison of PsO and HS EAIR should be cautiously interpreted.



3000224 - Fungal and Candida Infections in Hidradenitis Suppurativa with Secukinumab: A Post-Hoc Analysis

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Background: Secukinumab has demonstrated sustained efficacy and favorable safety in hidradenitis suppurativa (HS).

Objective: Describe fungal infections in patients with moderate to severe HS in the phase 3 SUNSHINE (NCT03713619) and SUNRISE (NCT03713632) trials.

Method: Patients were randomized 1:1:1 to receive secukinumab 300mg every 2 (SECQ2W) or 4 weeks (SECQ4W), or placebo. At week 16, patients receiving placebo switched to SECQ2W or SECQ4W through Week 52.

Results: 1084 patients were enrolled. At Week 16, Candida infection incidence was comparable between SECQ2W (1.9%), SECQ4W (1.7%), and placebo (1.7%). Total fungal infection rates were low (SECQ2W: 5.3%, SECQ4W: 3.9%, placebo: 2.8%).

Through Week 52 in patients receiving any secukinumab, Candida (Any SECQ2W: 5.5%; Any SECQ4W: 4.1%) and total fungal infections (Any SECQ2W: 12.0%; Any SECQ4W: 8.3%) remained infrequent. Most common fungal infections were: skin candidiasis (1.7%), oral candidiasis (1.4%), vulvovaginal mycotic infection (1.4%), and vulvovaginal candidiasis (1.0%). Most infections were mild (72.7%) or moderate (24.5%) in severity. No relationship between severity and dose regimen was observed. Recovery rates before the end of the treatment period were high in patients with any fungal infection (74.8%) or Candida (84.3%). Among patients receiving any secukinumab through Week 52,

22.4% with \geq 1 fungal and 21.6% with \geq 1 Candida infection experienced an infection within two weeks of systemic antibiotic treatment.

Discussion: Fungal infection rates, including candidiasis, were comparable between secukinumab or placebo up to Week 16, with modest increases through Week 52. Infections with secukinumab were largely mild or moderate with a high proportion fully resolved before end of treatment.



3000225 - Inflammatory Lesion Resolution: W24 Results from the Phase 2 MIRA Trial of the Nanobody® Sonelokimab

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Background: Sonelokimab is an IL-17A- and IL-17F-targeting Nanobody designed to penetrate inflammatory tissues. The Phase 2 MIRA trial achieved the primary endpoint of HiSCR75 at Week (W) 12 in adults with moderate-to-severe HS. Meaningful improvements in other lesion scores, alongside patient QoL, skin pain, and symptom scores, were also reported.

Objective: We present W24 MIRA results.

Method: MIRA was a 24-week global, randomized, double-blind, placebo-controlled trial (NCT05322473). At W12, patients receiving sonelokimab continued their allocated dose; patients receiving placebo were re-randomized 1:1 to sonelokimab 120mg/240mg. W24 outcomes (as observed; discontinuation rate LESS THAN 10%) included HiSCR75/HiSCR90, IHS4, and inflammatory lesion counts, as well as complete resolution of inflammatory lesions and inflammatory remission (IHS4 100).

Results: HiSCR75 response continued to increase to W24 with sonelokimab 120mg (56.9%; n=33/58), with improved responses also observed in HiSCR90 (37.9%; n=22/58), and in mean percentage change from baseline in IHS4 (–65.2%), abscess count (–80.1%), AN count (–65.5%), and DT count (–49.9%). Inflammatory lesion resolution was prevalent by W24 with sonelokimab 120mg, with most patients achieving complete resolution of abscesses (68.2%), 49.0% achieving DT100, 31.0% achieving AN100, and 24.1% achieving IHS4 100. Further improvements were also observed with sonelokimab 240mg, while crossover responses were consistent with patients randomized to receive sonelokimab at baseline. Sonelokimab was well tolerated, with no unexpected safety findings.

Discussion: Sonelokimab demonstrated substantially improved clinical efficacy to W24, as evidenced by high rates of inflammatory lesion resolution. Ongoing Phase 3 HS trials will further examine the efficacy and safety of sonelokimab 120mg.



3000228 - Real World Efficacy of Sodium Hypochlorite Body Wash in Managing Hidradenitis Suppurativa

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Background: Hidradenitis suppurativa (HS) is a chronic skin condition characterized by nodules, abscesses, and tunnels that may develop in the axillary, gluteal, and inguinal regions. Treatment encompasses antibiotics, hormonal therapy, topical treatments, and surgical procedures. While the use of antimicrobial washes is not novel, there is limited evidence regarding their effectiveness in managing HS.

Objective: This study aimed to assess the efficacy of sodium hypochlorite body wash in the management of HS, highlighting its utility based on patient-reported effectiveness in a real world setting.

Method: We conducted a prospective study spanning 4 weeks in participants diagnosed with HS recruited online from HS Connect. Participants used the body wash daily for 4 weeks. Evaluations were performed at baseline, 2 weeks, and 4 weeks, collecting patient-reported feedback via survey. The regimen consisted of the body wash with the option to additionally utilize the 'dab' method. Participants assessed disease activity based on redness, swelling, drainage, pain, itching, and odor, using a scale of 0-5.

Results: We enrolled 165 participants, with 145 completing all surveys across the 4-week period. Participants experienced significant improvement across all measured signs and symptoms (redness, swelling, drainage, pain, itching, odor) when comparing baseline and week 4 scores. The greatest decrease was observed in pain, with an average score of 3.52 at baseline and 1.62 at week 4 (p LESS THAN 0.001), representing a 1.9-point reduction (scale 0-5). The majority (88.8%) of participants would recommend the body wash to patients with HS.

Discussion: Our study demonstrates the real-world efficacy of a sodium-hypochlorite wash in the treatment of HS. A significant issue faced by HS patients is delayed diagnosis, often due to difficulties in accessing healthcare and lack of awareness among providers, which can lead to progression of HS. This body wash also presents an option for patients to initiate a treatment when they suspect HS without formal diagnosis.



3000230 - PROs from the Phase 2 MIRA Trial of the Nanobody® Sonelokimab in Patients with Moderate-To-Severe HS

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Background: HS is a highly debilitating disease with a profound physical and psychological burden for patients. Sonelokimab is an IL-17A- and IL-17-F targeting Nanobody designed to penetrate inflammatory tissues. Week (W) 12 PRO data from the MIRA trial showed significant improvements with sonelokimab compared with placebo.

Objective: We present the MIRA W24 PROs.

Method: MIRA was a 24-week global, randomized, double-blind, placebo-controlled Phase 2 trial in patients with moderate-to-severe HS (NCT05322473). W24 PROs (as observed; discontinuation rate LESS THAN 10%) included HiSQoL, NRS30 response in Patient Global Assessment of skin pain (baseline score ≥3), MCID (≥4-point reduction) in DLQI, and the PGI-S scale.

Results: Baseline PRO scores indicated a high disease burden (mean DLQI: 12.0; 70.7% with skin pain NRS ≥3). At W24, GREATER THAN 60% of patients receiving sonelokimab reported a clinically meaningful improvement in DLQI (MCID: 120mg, 61.5%; 240mg, 68.6%), including ~50% of patients who achieved simultaneous DLQI MCID and HiSCR50 responses (120mg, 55.8%; 240mg, 47.1%). Improvement in HiSQoL total score continued to W24 (mean change from baseline: sonelokimab 120mg, -11.4; 240mg, -10.4). For symptom scores, 45.7% (sonelokimab 120mg) and 50.0% (sonelokimab 240mg) of patients achieved NRS30. The proportion of patients with PGI-S minimal or absent symptoms was 41.1% (sonelokimab 120mg) and 42.9% (sonelokimab 240mg).

Discussion: Sonelokimab demonstrated early and sustained improvements in a range of PROs through W24, indicating that observed high levels of clinical response translate into meaningful improvements to alleviate QoL burden. The ongoing VELA 1 and 2 Phase 3 trials will further examine PRO responses with sonelokimab 120mg in patients with moderate-to-severe HS.



3000245 - TEL[BET] Eliminates Pain in Hidradenitis Suppurativa (HS) Jeffrey Klein¹

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Background: There is a need for a safe, effective treatment that completely eliminates the pain associated with HS

Objective: To present a case series of HS patients who have responded to large volume, targeted, subcutaneous interstitial infiltration of a Tumescent solution of Epinephrine Lidocaine containing B12, Ertapenem, Triamcinolone, TEL[BET], which has uniformly achieved more than 2 weeks without HS pain.

Method: HS patients who have with severe, unremitting, recalcitrant HS pain, received targeted treatments consisting of subcutaneous injection of up to 2,000ml of TEL[BET]. Tumescent Drug Delivery

(TDD) was achieved with the use of 32g, 30g, 25g, 22gauge hypodermic needles, and a new peristlatic TDD pump, capable of fluid flowrate selection in increments of 1RPM (range 1RPM to 600RPM).

Results: All patients have achieved unprecedented pain relief. with numerical pain scale (NPS) scores ≤ 1/10 for at least 2weeks. One patient experienced transient "steroid acne". Otherwise there were no observed adverse events.

Discussion: A Tumescent epinephrine lidocaine (TEL) is a local anesthetic solution consisting of a relatively large volume of a relatively dilute solution of epinephrine ≤ 1 mg/L, lidocaine ≤ 1 gm/L, sodium bicarbonate 10mEq/L, dissolved in normal saline (NS). TEL is unique in achieving wide area, pure sensory regional local anesthesia. A well known application of TEL is "tumescent liposuction". TEL[BET] is an example of TDD of B12 10mg/L, ertapenem 1gm/L, and triamcinolone 40mg/L dissolved in a TEL excipient solution. TDD requires a TDD pump. Painless TEL[BET] injection is unique in its ability to achieve complete elimination of severe HS pain for 2 weeks or more.



3000247 - Bimekizumab Impact on Draining Tunnels over 2 Years in HS: Data from BE HEARD EXT

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Background: Draining tunnels (DT; fistulas/sinus tracts) negatively impact quality of life in patients with hidradenitis suppurativa (HS) and lead to potential long-term sequelae.

Bimekizumab (BKZ), a humanized IgG1 monoclonal antibody, selectively inhibits interleukin (IL)-17F in addition to IL-17A.

Objective: Here, we report the impact of BKZ on the number of DTs over 2 years across the phase 3 BE HEARD I and II (BHI and II) and open-label BE HEARD EXT (BHEXT) trials.

Method: Data were pooled from the BHI and II studies (NCT04242446, NCT04242498) and BHEXT (NCT04901195). Week48 BHI and II completers could enroll in BHEXT and receive open-label BKZQ2W or BKZQ4W based on ≥90% HS Clinical Response (HiSCR90; averaged from Weeks36/40/44). Data are reported for all patients randomized to BKZ in BHI and II who enrolled in BHEXT (BKZ Total).

Mean absolute change from baseline (CfB) in DT count and achievement of \geq 3 DT reductions (baseline count \geq 5) are reported at Week48 and Week96 (observed case).

Results: Among 657 BHI and II Week48 completers who entered BHEXT, 556 of these received continuous BKZ. At baseline, 76.4% (n=425) of patients randomized to BKZ had DTs (mean±SD: 3.8±4.3).

Mean±SD DT absolute CfB was -2.4±3.4 at Week48 and -2.9±3.7 at Week96 in the BKZ Total group.

The proportion of patients in the BKZ Total group with \geq 3 DT reductions (baseline count \geq 5; n=177) were 84.7% (n=150/177) at Week48 and 88.1% (n=133/151) at Week96.

Discussion: In patients randomized to BKZ clinically important reductions in the number of DTs observed at Year1 were maintained or improved to Year2.

Funding: UCB Pharma. Medical writing: Costello Medical.



3000250 Humira Biosimilars for Hidradenitis Suppurativa: Practice Patterns of Dermatology Providers

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Background: Adalimumab is an anti-inflammatory TNFa antagonist with treatment efficacy in various disease states. FDA-approved adalimumab biosimilars entered the US market in 2023 as cost-effective alternatives to adalimumab. Biosimilars are nearly identical to their reference biologic structurally and are expected to perform similarly clinically, yet limited international data suggests switching patients to a biosimilar may affect patient adherence to the drug regimen.

Objective: This study aims to explore currently practicing, US-based dermatology providers' perception of adalimumab biosimilars for the management of moderate to severe HS.

Method: Dermatology providers were recruited through email invitations via Dermatology listservs to complete a digital questionnaire via REDCap.

Results: Twenty-two dermatology providers completed the survey (2 residents, 20 attending physicians). The majority practiced in the academic setting (90.9%), and three-fourths (77.3%) considered themselves HS experts. All respondents were familiar with the term biosimilar. Over half of respondents (54.5%) believe the switch to an adalimumab biosimilar could cause a delay in patients' access to medications. Nearly half (45.5%) of providers are concerned that the transition to an adalimumab biosimilar will negatively impact treatment of HS.

Discussion: Biosimilars are more economical than reference biologics for the management of HS. Over half of survey respondents felt that the transition to biosimilars could lead to a delay in accessing medication. Consensus amongst dermatology providers regarding biosimilar use could encourage actualization of their benefits to the healthcare system. Further research into the clinical efficacy of biosimilars in HS is warranted to increase providers' knowledge and confidence in their use.



3000252 - Bimekizumab 2-Year Efficacy by Prior Biologic Use in Moderate to Severe HS: Data from BE HEARD EXT

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Background: There are limited data on response to biologics in patients with hidradenitis suppurativa (HS) treated previously with biologics. Bimekizumab (BKZ) is a humanized IgG1 monoclonal antibody that selectively inhibits interleukin (IL)-17F and IL-17A.

Objective: We report BKZ efficacy outcomes using pooled data from BE HEARD I and II (BHI and II) and their open-label extension BE HEARD EXT (BHEXT) by prior biologic use to Week96.

Method: BHI and II (NCT04242446/NCT04242498) Week48 completers could enroll in BHEXT (NCT04901195) and receive open-label BKZ based on ≥90% HS Clinical Response (HiSCR90). HiSCR50/75/90 achievement and abscess and inflammatory nodule (AN) count 0/1/2 at BHI and II Week48/96 are reported for all patients randomized to BKZ in BHI and II who enrolled in BHEXT (BKZ Total).

Results: Among 657 BHI and II Week48 completers who entered BHEXT, 556 patients received continuous BKZ (biologic-experienced: 112[20.1%]; biologic-naïve: 444[79.9%]). Of these, 79.5% (biologic-experienced) and 80.4% (biologic-naïve) remained in the study at Week96.

Biologic-experienced: HiSCR50/75/90 response rates were 75.9%(85/112), 54.5%(61/112) and 33.9%(38/112) at Week48; 84.3%(75/89), 74.2%(66/89) and 51.7%(46/89) at Week96.

Biologic-naïve: HiSCR50/75/90 response rates were 80.9%(359/444), 66.4%(295/444) and 44.4%(197/444) at Week48; 85.7%(306/357), 77.9%(278/357) and 59.1%(211/357) at Week96.

In biologic-experienced patients, 52.7%(59/112) and 70.8%(63/89) achieved AN 0/1/2 at Week48/96. In biologic-naïve patients, 63.5%(282/444) and 75.9%(271/357) achieved AN 0/1/2 at Week48/96.

Discussion: BKZ demonstrated high response at 1 year and further improvement of HiSCR50/75/90 and AN 0/1/2 response to 2 years in biologic-naïve/-experienced patients, with biologic-naïve patients demonstrating numerically higher response rates throughout. Given the smaller sample size for patients with prior biologic use, results should be interpreted with caution.

Funding: UCB Pharma. Medical writing: Costello Medical.



3000254 - Bimekizumab 2-year Maintenance of Response in Moderate to Severe HS: Data from BE HEARD EXT

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Background: Hidradenitis suppurativa (HS) is a chronic inflammatory skin disease; it is important to maintain long-term clinical response to treatments. Bimekizumab (BKZ) is a humanized IgG1 monoclonal antibody that selectively inhibits interleukin (IL)-17F in addition to IL-17A.

Objective: Here, we report maintenance of response to BKZ through to 2 years, using pooled data from the phase 3 BE HEARD I and II clinical trials (BHI and II) and their open-label extension BE HEARD EXT (BHEXT).

Method: BHI and II (NCT04242446, NCT04242498) Week48 completers could enroll in BHEXT (NCT04901195) and receive open-label BKZQ2W or BKZQ4W based on ≥90% HS Clinical Response (HiSCR90) (averaged from BHI and II Weeks36/40/44). Maintenance of HiSCR50/75 and Dermatology Life Quality Index (DLQI) minimal clinically important difference (MCID) response through BHI and II Week96 are reported in BHI and II Week48 HiSCR50/75 and DLQI MCID responders, respectively. Data are reported as observed case for all patients randomized to BKZ in BHI and II who entered BHEXT (BKZ Total).

Results: Among 657 BHI and II Week48 completers who entered BHEXT, 556 patients received continuous BKZ. Among Week48 HiSCR50 responders in the BKZ Total group, 90.0% (332/369) maintained response through Week96. Of the Week48 HiSCR75 responders, 86.9% (265/305) maintained response through Week96. Among Week48 DLQI MCID responders, 86.0% (234/272) maintained response through Week96.

Discussion: Among patients who achieved response to BKZ at 1 year, the majority of patients maintained response to 2 years.

Funding: UCB Pharma. Medical writing: Costello Medical.



3000267 - Spesolimab Treatment in Patients with Hidradenitis Suppurativa: One Year OLE Study Interim Analysis

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Background: Hidradenitis suppurativa (HS) is a chronic, recurrent inflammatory disorder characterized by painful inflammatory nodules, abscesses, and draining tunnels (dT). In a proof-of-clinical-concept study in patients with HS (NCT04762277), there was a decrease in lesion counts including dT over 12 weeks of spesolimab treatment, with a favorable safety profile.

Objective: To present the 1-year interim descriptive analyses from the open-label extension (OLE; [NCT04876391]) study.

Method: A total of 45 of 52 (86.5%) patients entered the OLE (prior spesolimab, n=30; prior placebo, n=15), receiving 600 mg open-label subcutaneous spesolimab every 2 weeks. Patients previously randomized to placebo received a 1200 mg intravenous spesolimab loading dose.

Results: Safety analyses included patients with ≥ 1 year of spesolimab treatment (n=20) and those who prematurely discontinued treatment (n=25) (mean±standard deviation [SD] treatment exposure: 40.3±25.3 weeks). Spesolimab was well tolerated (mostly mild/moderate adverse events [AEs]) with seven (15.6%) serious AEs, three (6.7%) severe AEs, no deaths, and four (8.9%) discontinuations due to AEs (prior spesolimab, n=1; prior placebo, n=3). Over 50 weeks, mean absolute changes±SD from baseline for the prior spesolimab (n=15) and prior placebo (n=7) groups, respectively, were $-1.3\pm2.9\%$ and $-3.7\pm4.4\%$ for dT count, $-5.7\pm5.4\%$ and $-3.7\pm4.6\%$ for inflammatory nodule count, $-0.9\pm2.5\%$ and $-2.4\pm5.6\%$ for abscess count, and -12.8 ± 14.2 and -23.4 ± 29.6 for International Hidradenitis Suppurativa Severity Score System (IHS4).

Discussion: In this analysis of the OLE, the safety profile of spesolimab was favorable, and there was a sustained reduction in all lesion types and IHS4 over 1 year of treatment. These results support further development of spesolimab in HS.



3000271 - Effectiveness of Weight Loss Drugs in the Management of Hidradenitis Suppurativa: A Systematic Review <u>Roy Khalaf¹, William Davalan¹, Raed Alhusayen²</u>

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Background: Hidradenitis suppurativa (HS) is a chronic dermatological condition often associated with morbid obesity

Objective: With the increasing use of weight-loss medications, we aimed to systematically review the literature to evaluate their impact on the improvement of HS.

Method: A comprehensive search of the Embase and MedLine databases was conducted from their inception to May 2024, without language restrictions. The search included all human studies involving HS and weight-loss medications, excluding conference abstracts. A pooled estimate analysis was performed using R studio.

Results: The search identified one retrospective cohort study, two prospective cohort studies, one case-control study and three case reports. The weight-loss medications studied were liraglutide (3 studies, n=16), metformin (2 studies, n=65), semaglutide (1 study, n=30), and a combination of metformin and liraglutide (one study, n=1). In total, 112 patients with HS were analyzed, 84% of whom were female, with a pooled mean age of 32.4 years. The mean Hurley score decreased from 2.6 to 1.1 in 14 patients treated with liraglutide. Significant improvements were observed in various parameters: the Dermatology Life Quality Index (DLQI) had a mean reduction of 7.6 in 16 patients on metformin, decreased from 21 to 14 in one patient on liraglutide, and from 13 to 9 in a cohort of 30 patients using semaglutide.

Discussion: Weight-loss medications have shown promise in improving HS, reducing disease severity, and enhancing patients' quality of life. Further research is needed to integrate these medications into the treatment regimen for HS patients.



3000273 - The Effect of Laughter Yoga on the Quality of Life of Hidradenitis Suppurativa Patients

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Background: Hidradenitis Suppurativa (HS) negatively impacts quality of life due to the associated pain, pruritus, malodor, and suppuration. Medical comorbidities include psychiatric disorders like depression, anxiety, and suicidality in HS patients.

Objective: Laughter yoga combines yogic breathing with intentional laughter to promote physical, mental, and emotional well-being. We sought out to determine whether quality of life in HS patients could be improved through an on-going laughter yoga intervention study.

Method: This study assessed the effect of 4 weekly laughter yoga sessions in 6 HS patients. Weekly baseline assessments of quality of life were analyzed using the HS Quality of Life (QoL) and HS Global Assessment (GA) surveys before, during and after laughter yoga sessions. Results were analyzed using ANOVA tests comparing averaged responses for each participant's QoL and GA responses before and

after laughter yoga. Currently, a second cohort of participants are being assessed and will be included in the final analysis.

Results: In our first cohort, 5 patients experienced a 0.25-0.5-point reduction in HSGA following laughter yoga. Additionally, 4 patients had an average reduction in HSQOL ranging from 0.34-1.2. A follow-up survey revealed that most patients felt that laughter yoga improved their HS symptoms and emotional wellbeing. We are completing the second cohort with a larger participant cohort to further validate these findings.

Discussion: Although our small sample size made statistical significance hard to reach, our pilot study paves the path for future studies analyzing laughter therapy. We are currently conducting a larger study, projected to conclude by July 2024.



3000276 - Characterization and Successful Surgical Management of "Reverse Fanny-Pack" Suprapubic Plaque in HS

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Background: Hidradenitis Suppurativa (HS) is a chronic inflammatory disease that presents clinically as nodules, abscesses, and epithelialized dermal tunnels in intertriginous areas. Due to the extensive scarring and contractures that often occur in severe HS, lymphatic ducts may become blocked, impairing drainage of lymphatic fluid and resulting in the development of lymphedema. As a result, patients may develop large redundant or pendulous lymphedematous plaques in areas of HS.

Objective: In this case series, we report two cases of lymphedematous plaques occurring in the suprapubic region of two women. In both individuals, these plaques had enlarged to the point of overhanging the mons pubis and obscuring the clitoral apparatus. We hereby refer to these pendulous plaques as "reverse fanny-packs". For each patient, these reverse fanny-packs were highly distressing and negatively affected their quality of life.

Method: Until now, these anatomy-distorting plaques were either treated with musculocutaneous grafts or, as in the case of our patients, no treatment was offered for fear of recurrence or an even more disfiguring outcome. Additionally, there is no current literature to guide the surgical management of such patients. We describe the surgical treatment and healing of two cases of reverse fanny-pack using Staged CO2 Marsupialization.

Results: Neither patient experienced major or minor complications from the procedure. Healing through secondary intention following excision provided complete closure with minimal scarring and an aesthetically pleasing outcome.

Discussion: In this report, the authors look to characterize suprapubic lymphedematous plaques in HS and illustrate that Staged CO2 Marsupialization is an efficacious treatment in these complicated cases.



3000285 - Adverse Effects of Steroid Therapy in Hidradenitis Suppurativa: A Retrospective Cohort Study Madelyn Schmidt¹, Kathleen Kroger²

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Background: Hidradenitis Suppurativa (HS) is an inflammatory skin condition that is typically managed with oral prednisone (OP). Intramuscular triamcinolone injection (ITI) therapy can control HS flares, however, the safety profile of multiple regimens of ITI in HS is unknown.

Objective: We assess the short-term and long-term risk of adverse effects after multiple ITIs in HS patients, and the one-year risk of adverse effects after receiving ITI or OP.

Method: Using the TriNetX Research Network between January 1, 2018, and December 31, 2019, we identified 892 patients with HS who received one ITI and 892 matched HS patients who received three or more ITIs within one year.

Results: Patients with multiple ITIs did not have a significantly increased one-month or one-year risk of abnormal weight gain, skin infections, hyperglycemia, hypertension, depressive episodes, behavioral syndromes, bacterial and viral infections, or peptic ulcers. There was no increased one-year risk of hyperlipidemia, metabolic syndrome, adrenocortical insufficiency, osteoporosis, cataract, or glaucoma. We identified 650 patients with HS who received three or more ITIs and 650 matched HS patients who received three or more regimens of 20mg OP within one year. There was no significant difference in the one-year risk of abnormal weight gain, hyperlipidemia, osteoporosis, cataract, glaucoma, behavioral syndromes, peptic ulcers, hyperglycemia, depressive episodes, skin infections, or bacterial and viral infections. Patients with oral prednisone had significantly higher one-year risk of hypertension.

Discussion: We demonstrate that multiple ITIs do not significantly increase the short- or long-term risk of adverse corticosteroid effects compared to multiple regimens of OP or singular ITI.



3000288 - Hidradenitis Suppurativa Chart Review: Biologic Drugs Used in Comorbid Conditions

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Background: Biologics are becoming more commonly used as treatment for hidradenitis suppurativa (HS). Given the increased prevalence of comorbid conditions in those with HS, there exists an opportunity to treat both HS and existing comorbidities with a single biologic agent.

Objective: To evaluate which biologic medications HS patients are on, the burden of comorbid conditions in those patients, and whether changes in prescribing habits for HS and comorbid conditions are necessary.

Method: A chart review of HS patients treated with biologic medications over the past 3 years at a private community clinic in Calgary, Alberta, Canada was performed. Data collection included patient age/gender demographics, name of the biologic medication(s), comorbid condition(s), and duration of

therapy for those patients treated. Diagnoses were classified and grouped according to currently published HS comorbid conditions.

Results: Preliminary results have demonstrated that of the 81 patients who met the inclusion criteria, the two biologics most often prescribed were Adalimumab (n=66, 82%) and Secukinumab (n=14, 17%). The most prevalent comorbid conditions were depression/anxiety (n=39, 48%), type II diabetes (n=33, 40.7%), obesity (n=26, 32.1%), psoriasis (n=9, 11%), inflammatory bowel disease (n=7, 9%), and inflammatory arthritis (n=6, 7%). Other comorbidities identified included asthma (n=13, 16%) and sleep apnea (n=9, 11%).

Discussion: Given that certain biologics are also able to treat other inflammatory conditions, such as IBD, psoriasis, and rheumatoid arthritis, and the high prevalence of these conditions in patients with HS, it may be more efficient for prescribers to coordinate with other specialties to treat both HS and comorbid conditions with a single biologic agent.



3000304 - A Single-Center Retrospective Study of GLP-1 Agonist Use in Patients with Hidradenitis Suppurativa

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Background: GLP-1 agonists, novel medications utilized in patients with obesity and type 2 diabetes, lead to significant weight reduction. Given that obesity is thought to contribute to the development and progression of Hidradenitis Suppurativa (HS), there is increasing interest in utilizing this medication in this patient population.

Objective: This study aims to identify factors influencing GLP-1 agonist use in patients with HS.

Method: A retrospective review of patients diagnosed with HS who presented to Northwestern Medicine between October 2015 - December 2023 was completed. Statistical analyses, including Chi-squared tests and logistic regressions, were used to identify variables associated with GLP-1 agonist use in patients with HS.

Results: In addition to obesity (OR = 3.5, 95% CI = 2.9-4.3) and diabetes (OR = 5.8, 95% CI = 4.6-7.3), dyslipidemia (OR = 1.6, 95% CI = 1.3-2.1), hypertension (OR = 1.5, 95% CI = 1.2-2.0), and concomitant biologic use (OR = 1.5, 95% CI = 1.0-2.7) were all significantly associated with higher odds of being prescribed a GLP-1 agonist. Male sex (OR = 0.6, 95% CI = 0.5-0.8) and Non-Hispanic ethnicity (OR = 0.7, 95% CI = 0.5-0.9) were associated with decreased odds of GLP-1 agonist use.

Discussion: This study assesses factors associated with GLP-1 agonist use in patients with HS. In addition to emphasizing the importance of managing comorbidities, potential treatment disparities included lower prescription rates among male and Non-Hispanic patients. Further studies should examine clinical outcomes of patients with HS prescribed GLP-1 agonists.



3000312 - Randomized Trial Evaluating Wet-To-Dry Vs. Petrolatum and Non-Stick Dressings after Hs Surgery

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Background: Proper wound care following Hidradenitis suppurativa (HS) surgery has been inadequately investigated.

Objective: Through this randomized, single-blinded trial, we compared quality of life (QOL), Pressure Ulcer Scale for Healing (PUSH) scores, and pain with dressing changes for standard of care Wet-todry (WTD) vs. Petrolatum and Non-stick (PNS) dressings following HS surgeries.

Method: Patients were eligible if they were GREATER THAN 15 years old and underwent standardof-care surgical procedure for HS with planned secondary intention wound healing. Patients were followed for a minimum of 6 weeks postoperatively with surveys to be completed at home, including a wound photograph, at weeks 1, 2, 4, and 6 weeks postoperatively.

Results: 39 and 35 patients, predominantly female and black or white race, were randomized to WTD and PNS groups respectively and completed the study. There were no statistically significant differences in mean overall, body, psyche, and everyday life wound QOL and PUSH scores between the two groups at post-operative week 1,2,4 and 6. Furthermore, although differences in mean general pain outside of dressing changes and pain with dressing application scores were not statistically different for all follow-up periods, patients reported significantly higher pain with dressing removal for the WTD group during post-operative week 1 (p LESS THAN 0.001).

Discussion: Our RCT demonstrates that PNS dressings are at least non-inferior to WTD dressings and may actually result in less pain during dressing removal during early second intention wound healing following HS surgery.



3000313 - Hidradenitis Suppurativa: A New Pathophysiology-Focused Management Paradigm

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Background: Hidradenitis Suppurativa (HS), a disease characterized by the formation of sinus tracts, recurrent abscesses, and scars is painful and debilitating. While much research has been done to increase the treatments available to patients with HS, current outcomes remain suboptimal due to a lack of clear guidelines on when and how to use the various options.

Objective: To develop a management paradigm that prioritizes an understanding of the pathophysiology of sinus tract development, and a correspondingly prompt initiation of interventions, including a combination of medications and procedures as indicated.

Method: In Hurley Stages I through III, medical treatment is effective for early inflammatory lesions, which can prevent their progression to sinus tracts. In Hurley Stages II and III, medical treatment usually does not resolve sinus tracts, and procedural removal is required for removal. Medical therapy should be continued before, during, and after the removal of sinus tracts to reduce recurrence risk.

Results: This proposed management paradigm addresses the deficiencies in current HS treatment guidelines by emphasizing the importance of building a strong therapeutic alliance with patients, developing an optimized medical regimen, and establishing access to procedural interventions.

Discussion: Overall, this approach aims to improve patient outcomes by reducing the confusion and inconsistency in current HS care models. By understanding the natural progression of HS and the role of sinus tract development, this new paradigm provides a more structured approach to HS management, ensuring optimal timing of medical and procedural interventions.



3000316 - Subjective Patient Experience of Golimumab for Hidradenitis Suppurativa in comparison to Infliximab

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Background: Infliximab (IFX), a chimeric monoclonal antibody targeting tumor necrosis factor (TNF)- α , is the only weight-based therapy used for hidradenitis suppurativa (HS). However, IFX is contraindicated after IFX-associated anaphylaxis (IAAx) or when neutralized by IFX-associated antibodies (IAAb). Intravenous (IV) golimumab, a fully humanized TNF- α inhibitor, has been used for refractory HS.

Objective: To compare subjective experiences of a cohort treated with IV golimumab for HS after discontinuing IFX.

Method: We conducted telephone surveys of 14 HS patients undergoing IV golimumab therapy for 3+ months after IFAAx or IAAb. A standardized questionnaire focused on qualitative measures, grading drainage, mood, mobility, sleep quality, and quality of life using a 5-point Likert scale; as well as infusion experiences, grading willingness to receive IV golimumab again if discontinued, HS flare frequency, and overall preference for golimumab versus IFX.

Results: Fourteen patients were surveyed. The majority of participants reported improved or similar lesion status (12[86%]), pain (10[71%]), drainage (10[71%]), improvements in mood (13[93%]), mobility (12[86%]), sleep (13[93%]), and quality of life (12[86%]) compared to IFX. All participants reported being 'satisfied' or 'very satisfied' with IV golimumab therapy. Two patients reported side effects (arthralgia, injection site scar). All participants were willing to undergo IV golimumab again; 8(57%) preferred IV golimumab over IFX; 3(21%) had no preference.

Discussion: Despite this small cohort, we report a comparable experience among HS patients receiving IV golimumab compared to IFX. Given the critical need for an alternative weight-based (TNF)- α inhibitor in the setting of IAAx and IAAb, further investigation of IV golimumab therapy is warranted.



3000361 - Ertapenem in the Treatment of Hidradenitis Suppurativa: A Narrative Review <u>Caitlin Benitez</u>¹, Christina Enescu², Steven Daveluy²

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Background: Ertapenem is a broad-spectrum beta lactam antibiotic with demonstrated efficacy in managing hidradenitis suppurativa (HS). Ertapenem therapy currently involves 1 g daily intravenous (IV) infusions for 6 weeks, which is well tolerated, though daily infusions and central line maintenance pose inconvenience.[1]

Objective: This narrative review aims to discuss the highlights of studies on the treatment of HS with ertapenem, discerning the evidence of its efficacy from remaining challenges in its use.

Method: A literature search of PubMed and EMBASE was performed. Pertinent studies were examined for experimental design, ertapenem dose, route, frequency, and overall results.

Results: Six original studies on the treatment of HS with ertapenem were reviewed. Across all studies, a total of 201 patients received ertapenem. Five studies reported statistically significant improvements on ertapenem therapy as measured through various parameters.[2–6] The sixth study reported a 97.2% (n = 35/36) response rate.[7] Intramuscular (IM) ertapenem was reported to have statistically significant effects in one study, suggesting a potential alternative to IV therapy.[6] Studies on longer remission periods showed benefits to antibiotic maintenance therapy and prolonged treatment duration.[2,5,7] Ertapenem was purported to serve a complementary role to HS biologics, one study including 79.6% of patients on concomitant infliximab, or as bridging therapy to surgery.[7,2,5,3]

Discussion: The findings of this review show consistent, short-term efficacy of ertapenem treatment in severe HS. Further studies on IM ertapenem and longer treatment durations are needed to optimize ertapenem therapy. Advancements in our understanding will help elucidate the role of ertapenem in the treatment of HS.



3000362 - Argentinean Guidelines for HS Treatment

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Background: Hidradenitis suppurativa (HS) is a chronic, recurrent dermatological condition that significantly impairs quality of life. Advances in understanding its pathophysiology are rapidly transforming therapeutic approaches, creating the need for updated guidelines to help dermatologists tailor treatments effectively.

Objective: This consensus aimed to establish a comprehensive therapeutic algorithm and guidelines for HS management in Argentina, based on the latest scientific evidence.

Method: The HS working group of the Argentine Dermatological Society reviewed existing literature and, using the Delphi method, developed these guidelines and the algorithm.

Results: The therapeutic algorithm integrates clinical and ultrasound severity scoring to tailor pharmacological and surgical interventions to individual patient needs.

Discussion: This consensus introduces ultrasound scoring as an important tool for therapeutic planning. It offers a structured, evidence-based approach to HS treatment. It aims to standardize care, promote multidisciplinary teams of specialists, therefore improving patient outcomes in Argentina and neighboring countries.



3000363 - Provider Perceptions and Preferences of Laser Hair Removal for Hidradenitis Suppurativa Teja Mallela¹, Akhil Wadhera², Christopher Sayed¹

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Background: Laser hair removal (LHR) is an emerging treatment method for hidradenitis suppurativa (HS).

Objective: We seek to characterize provider impressions of efficacy, patient selection, and approach to treating HS with LHR.

Method: U.S.-based dermatologists were asked to complete an anonymous online questionnaire on their perceptions and use of LHR for HS.

Results: Data collection is ongoing, and the first 21 survey responses from dermatologists revealed that 100% of respondents recommend LHR as a treatment option for HS "often" or "always." The respondents were less likely to recommend LHR for Hurley stage 3 patients. When asked about the effectiveness of LHR for HS, more than 75% of respondents expressed "moderate" or "excellent" improvement. Over 90% of respondents recommend four or more LHR treatments to adequately treat HS. Providers generally found LHR to be similar in complexity to treating moderately sized port wine stains and non-ablative fractional resurfacing. They felt that patient satisfaction and cost-effectiveness were higher compared to biologics such as adalimumab, with a similar reduction in abscesses and nodules, though the effect on draining tunnels was felt to be more limited. Insurance billing was commonly submitted, with code 17999 (unspecified procedure) being the most common, followed by 17111 (GREATER THAN 15 benign lesion destruction). When asked about the likelihood of insurance coverage for LHR, on a scale between 0 and 10, the respondents averaged a score of 5.

Discussion: Our survey study shows that LHR is commonly recommended by dermatologists to treat HS for Hurley stage 1 and 2 patients and expressed moderate or excellent improvement.



3000368 - Safety of Povorcitinib During 84 Weeks of Treatment: Post Hoc Analysis of a Phase 2 HS Study

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Objective: To determine the frequency and severity of select adverse events (AEs) and laboratory abnormalities over 84 weeks of treatment.

Method: This is a post hoc analysis of a phase 2 randomized clinical study. After a 16-week placebocontrolled period, patients entered a 36-week open-label extension (OLE) to receive once-daily (qd) povorcitinib 75 mg, followed by a 48-week long-term extension (LTE; povorcitinib 45 or 75 mg qd). The safety database was searched for relevant MedDRA terms and predetermined laboratory cutoff ranges.

Results: 175 patients entered the OLE, and 97 entered the LTE. The most common AEs were COVID-19 (29.1%), upper respiratory tract infection (13.1%), acne (12.6%), nasopharyngitis (8.0%), blood creatine phosphokinase increased (6.9%), urinary tract infection (6.9%), headache (5.7%), and worsening of HS (5.7%).

Serious AEs (SAEs) and grade \geq 3 AEs were reported in 14 (8.0%) and 21 (12.0%) patients, respectively. No SAEs were considered treatment related. One fatality occurred during the safety follow-up period and was not treatment related. Dose interruptions occurred in 34 (19.4%) patients, and 10 (5.7%) discontinued due to an AE.

Laboratory abnormalities were infrequent. Hemoglobin LESS THAN 8.0 g/dL occurred in 2 (1.1%) patients. All platelet decreases (n=6, 3.4%) were grade 1. No malignancies, major cardiovascular events, or deep venous thromboses were reported.

Discussion: In this phase 2 study, long-term treatment with povorcitinib demonstrated an adequate safety profile consistent with the JAK inhibitor class.



3000383 - The Utility of Upadacitinib to Treat Refractory Hidradenitis Suppurativa in an Obese Patient

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Background: Traditional therapies, such as Tumor Necrosis Factor (TNF)- α inhibitors, often fail in severe or treatment-resistant cases of hidradenitis suppurativa (HS). Upadacitinib, a Janus Kinase (JAK) inhibitor, has emerged as a promising alternative. However, limited data exist on its use in patients with obesity, and no prior studies have explored higher dosing in this population.

Objective: To assess the effectiveness of 45 mg upadacitinib in treating severe, treatment-resistant HS in an obese patient.

Method: A 38-year-old male with a BMI of 40.5 and Hurley stage III HS, previously unresponsive to infliximab and double-dose adalimumab, was treated with upadacitinib 45 mg daily. Clinical markers (IHS4, pain scores) and inflammatory lab markers (IL-6, ESR, CRP) were monitored over a two-month period.

Results: At follow-up, the patient's IHS4 score improved from 11 to 4. Inflammatory markers also showed significant reductions, with IL-6 decreasing from 22.02 pg/mL to 6.51 pg/mL, ESR dropping from 67 mm/h to 65 mm/h, and CRP declining from 8.1 mg/dL to 0.7 mg/dL. The patient reported a marked reduction in pain and frequency of flares, describing it as "the best his HS has been in years." Treatment was well tolerated, and no adverse effects were reported.

Discussion: This case highlights the potential for high-dose upadacitinib (45 mg) to effectively treat refractory HS in an obese patient. With clinical and lab marker improvements and no side effects, it

provides a promising treatment alternative for patients unresponsive to anti-TNF therapies. Further studies are needed to explore the relationship between dosing, BMI, and long-term outcomes.



3000384 - GLP-1 Agonist Modulate Wound Healing in Hidradenitis Suppurativa <u>Arthy Suresh</u>¹, Camile Delva², Isabela Brown-Soler³, William Shipman³, Henry Hsia⁴, Anna Eisenstein³

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Background: Hidradenitis suppurativa (HS) is a chronic inflammatory skin condition characterized by painful nodules, abscesses, and draining tunnels. HS is associated with obesity and metabolic syndrome; weight loss has been shown to improve symptoms of HS. The development and widespread use of glucagon-like peptide (GLP)-1 agonists for the treatment of obesity and diabetes suggests a potential new therapeutic approach in HS. While the weight loss associated with GLP-1 agonist use might be predicted to improve HS symptoms, we wondered whether these agents may also have a direct effect on dermal fibroblasts. Previous studies have shown that modulation of GLP-1 signaling improves wound healing in obese mice. Additionally, GLP-1 agonists have been shown to significantly reduce oxidative stress, which contributes to tissue damage and impairs healing in HS. We thus hypothesized that GLP-1 agonists may enhance wound closure rates in HS fibroblasts.

Objective: To determine the effect of GLP-1 agonists on wound healing in HS-derived dermal fibroblasts.

Method: We performed in vitro wound closure assays using fibroblasts derived from HS lesional and perilesional skin. Following wounding, we treated the cells with vehicle or the GLP-1 agonist, liraglutide, and measured the width of the wound at five different points along the scratch and the total area of the wound at 0, 2, 4, 6 and 24 hours.

Results: We found that the rate of wound gap closure in wounds treated with liraglutide was approximately 2-fold greater than vehicle treated controls. We also observed a slightly increased rate of wound gap closure by fibroblasts derived from lesional as compared to perilesional skin.

Discussion: Our findings, therefore, indicate that GLP-1 agonists modulate HS-derived fibroblast migration. Our work provides insight into potential additional benefits of GLP-1 agonist use in patients with HS.



3000386 - Injectable Triamcinolone Therapy for Hidradenitis Suppurativa: A Systematic Review and Recommendations

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Background: Hidradenitis suppurativa (HS) is a chronic, inflammatory skin disorder affecting 0.05% to 4% of the US population. Debilitating acute inflammation and chronic scarring leads to poor quality of life.5 Intralesional triamcinolone (ILTAC) is a highly effective treatment for HS flares; however, there is no consensus regarding standardized dosing; and, when to substitute intramuscular corticosteroid
therapy. The wide range of triamcinolone volumes and concentrations has made ILTAC optimization elusive.

Objective: Survey and consolidate literature on injectable triamcinolone for HS vis-à-vis systematic review as the basis for a standardized treatment algorithm.

Method: A systematic review followed PRISMA guidelines using terms related to "hidradenitis suppurativa" and "triamcinolone." Studies were screened in Covidence employing uniform eligibility criteria.

Results: Data from 13 studies were extracted: four retrospective and four prospective cohort studies; two case series, one case report, one randomized control trial, and one case-control study (549 participants, 722 lesions). A total of 601 lesions (83.2%) improved at follow-up; of 442 improved lesions, 227(51.4%) underwent complete resolution. Skin atrophy (n=23) and pigmentary changes (n=29) were commonly noted. Other side effects included lesion exacerbation, yellowish deposits, fever, and menstrual changes.

Discussion: Intralesional triamcinolone effectively treats acute HS, especially at higher doses. Ultrasound-guided injections improve precision and outcomes. Intramuscular triamcinolone is preferred when many anatomic sites are affected. Side effects, including skin atrophy and pigmentary changes, are generally mild. Wider use of ultrasound is highly effective but future studies are needed to refine dosing and long-term efficacy. Our treatment algorithm is provided in the form of a diagram and table.



3000390 - Complication and Recurrence after Hidradenitis Suppurativa Surgery: A Systematic Review and Meta-Analysis Caralin Schneider¹, Fiona Gruzmark², Natalie Hickerson², Hadar Lev-Tov²

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Background: Early hidradenitis suppurativa (HS) is susceptible to medical treatment however, latestage disease often remains refractory requiring surgical management.

Objective: To identify the risk of complication and recurrence following HS surgery.

Method: Search in Medline/PubMEd, and Cochrane CENTRAL databases for: "hidradenitis suppurativa," OR "acne inversa," OR "verneuil disease" AND "surgery." English language studies from January 1984 to July 2024, including subjects 15 years old and older with moderate-severe HS that underwent a surgical procedure (excluding laser) were included. Studies that did not present original data, did not directly report on surgical outcomes of HS, were excluded.

Results: Of 1610 abstracts, 67 studies were included. Wide local excision (WLE) was the most common procedure reported in 60 studies, with 4 studies reporting on de-roofing, and 2 studies on skin tissue sparing electrosurgical peeling. The pooled mean complication rate of 60 studies reporting complications rates, including 5,124 surgical sites, was 26.8% (95% CI, 25.6%-28%). Most complications were considered "minor," and no deaths were reported. The mean pooled complication rate in the studies including de-roofing (n=561 surgical sites from 2 studies) was 14% (95% CI, 11.0-16.8%), and the mean pooled rate of complications in the studies that included WLE (n=5607 surgical sites from 57 studies) was 28.2% (95% CI, 27.0-29.4%). The pooled mean local recurrence rate of the 62 studies reporting recurrence rates was 21.4% (95% CI 20.3-22.5%).

Discussion: Surgery remains an effective treatment for HS, however, surgery will always come with risk. De-roofing may represent a lower risk alternative to WLE.



3000391 - Combination Therapy with Upadacitinib and Adalimumab for Refractory Hidradenitis Suppurativa Zahidul Islam¹

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Background: The variable efficacy of traditional biologics, like adalimumab, underscores the need for novel or combination therapies. Dysregulation of the JAK-STAT pathway has been implicated in the pathogenesis of hidradenitis suppurativa (HS), suggesting that JAK inhibitors, such as upadacitinib, may offer a promising therapeutic option. Studies combining JAK inhibitors with traditional biologics for severe HS remain limited.

Objective: To evaluate the effectiveness of upadacitinib and adalimumab in a patient with severe, refractory HS after standard therapies failed.

Method: A 25-year-old male with severe HS of 6-years duration presented with debilitating, advanced HS, poorly controlled by extended courses of infliximab, 7.5 mg/kg every four weeks, and adalimumab, 80mg weekly. During treatment with double-dose adalimumab, topical antimicrobials, and trimethoprimsulfamethoxazole, upadacitinib, 30 mg daily was added to the regimen The international HS severity score (IHS4) was tracked across multiple visits.

Results: The IHS4 scores dropped from 13 to 8 at 2 months, and further to 4 at 4 months, reflecting a dramatic reduction in flare frequency, lesion size, and drainage. No adverse effects were reported. The patient experienced remarkable improvement in daily functioning. Excellent control of HS was maintained with upadacitinib, 45 mg daily, as a monotherapy after discontinuing adalimumab. CBC and liver tests before upadacitinib initiation and two months into treatment were normal.

Discussion: This case demonstrates the enhanced therapeutic benefit of targeting both TNF-alpha and JAK pathways concomitantly for severe HS. The unique clinical improvement, despite failure with standard therapies, suggests this combination therapy may be a valuable treatment option for refractory HS, meriting further study.



3000393 - Secukinumab Adverse Events in the Treatment of Hidradenitis Suppurativa: An Analysis of the FDA Adverse Event Reporting System (FAERS) Aditya Joshi¹, Carissa Saadi², Caitlyn Dagenet³, Lauren Gawey⁴, Jennifer Hsiao⁵, Vivian Y. Shi⁴

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Background: Secukinumab is an FDA-approved biologic that blocks interleukin-17A and is used to treat moderate-to-severe hidradenitis suppurativa (HS). While effective, real-world safety data on secukinumab for HS patients is limited.

Objective: This study aimed to assess the association between secukinumab and adverse events (AEs) in HS patients using data from the FDA Adverse Events Reporting System (FAERS).

Method: A pharmacovigilance study was conducted using FAERS data from Q4 2003 to Q1 2024. The OpenVigil 2.1 platform identified patients aged 12-85 who received secukinumab for HS. Disproportionality analysis was performed using the Reporting Odds Ratio (ROR), Proportion Reporting Ratio (PRR), and Bayesian Confidence Propagation Neural Network (BCPNN) to detect safety signals. An AE was considered significant if it met the threshold criteria for all three algorithms.

Results: Among 935 reports associated with secukinumab, 227 unique AEs were identified. Hospitalization occurred in 34% of AE cases. The strongest AE signals were for breast abscess (ROR 45.6, PRR 44.9), hypersensitivity vasculitis (ROR 40.8, PRR 39.9), and gastroenteritis (ROR 30.4, PRR 29.9).

Discussion: These findings highlight several underrecognized AEs associated with secukinumab, emphasizing the need for vigilant monitoring of HS patients. Further research is required to confirm these signals and refine risk management strategies for secukinumab treatment.



3000396 - Adalimumab Adverse Events in the Treatment of Hidradenitis Suppurativa: An Analysis of the FDA Adverse Event Reporting System Aditya Joshi¹, Carissa Saadi², <u>Caitlyn Dagenet</u>³, Lauren Gawey⁴, Jennifer Hsiao⁵, Vivian Shi⁴

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Background: Adalimumab, a TNF- α inhibitor, is the first FDA-approved biologic and remains the most widely used treatment for moderate-to-severe hidradenitis suppurativa (HS). Although its efficacy has been demonstrated in clinical trials, there is limited post-marketing surveillance data regarding its safety profile.

Objective: This study aimed to assess the adverse events associated with adalimumab use in HS patients, utilizing data from the FDA Adverse Event Reporting System (FAERS).

Method: A pharmacovigilance study was conducted using FAERS data from Q4 2003 to Q1 2024. Patients aged 12-85 receiving adalimumab for HS were identified using the OpenVigil 2.1 platform. Disproportionality analysis was performed using Reporting Odds Ratio (ROR) and Proportion Reporting Ratio (PRR). An AE was considered significant if it met the threshold criteria for both algorithms.

Results: Among 11,222 reports related to adalimumab, 5,263 unique AEs were identified. Notably, 2.05% of these events resulted in death and 13.7% led to hospitalization. The analysis identified 20 significant adverse events, primarily related to medication administration errors (16) or upper respiratory infections (4). The strongest signals were observed for device issues (ROR 72.22, PRR 67.89), incorrect product use technique (ROR 37.23, PRR 34.97), injection site hemorrhage (ROR 26.88 PRR 25.69), and upper respiratory tract infections (ROR 7.51, PRR 7.46).

Discussion: These adverse events identified emphasize the need for patient education on proper injection techniques to mitigate risks. Reassuringly, no new AEs were identified beyond those already listed in the adalimumab label. Continued post-marketing surveillance is essential to ensure the long-term safety of adalimumab in HS patients.



3000397 - Infliximab Adverse Events in the Treatment of Hidradenitis Suppurativa: An Analysis of the Fda Adverse Event Reporting System (FAERS) Aditya Joshi¹, Carissa Saadi², Caitlyn Dagenet³, Lauren Gawey⁴, Jennifer Hsiao⁵, Vivian Y. Shi⁶

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Background: Infliximab, a TNF-α inhibitor, is frequently used off-label for treating moderate-to-severe hidradenitis suppurativa (HS). However, real-world safety data on infliximab in HS patients is limited.

Objective: This study evaluated the association between infliximab and adverse events (AEs) in HS patients by analyzing data from the FDA Adverse Events Reporting System (FAERS).

Method: A pharmacovigilance study was conducted using FAERS data from Q4 2003 to Q1 2024. Patients aged 21-85 who received infliximab for HS were identified using the OpenVigil 2.1 platform. Disproportionality analysis was conducted with Reporting Odds Ratio (ROR), Proportion Reporting Ratio (PRR), and Bayesian Confidence Propagation Neural Network (BCPNN). AEs were considered significant if they met the criteria across all three algorithms.

Results: Of 1,435 reports associated with infliximab, 306 unique AEs were identified. Hospitalization occurred in 22.5% of cases. Infusion-related reactions showed the highest signal (ROR 709.17, PRR 632.01), followed by necrotizing vasculitis (ROR 91.7, PRR 90.28), and renal impairment (ROR 69.31, PRR 67.71). Five reported AEs (necrotizing vasculitis, renal impairment, Clostridium difficile colitis, hemophagocytic lymphohistiocytosis, and squamous cell carcinoma) are not included in the infliximab label.

Discussion: These findings highlight several severe yet underrecognized AEs linked to infliximab in HS patients. The high signal for infusion-related reactions emphasizes the need for caution during and after administration along with patient education. Further research is needed to better understand these signals and optimize safety protocols in HS patients receiving infliximab.



3000282 - Safety Review of Hidradenitis Suppurativa Medications in Patients with HIV: Insights from Other Indications

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Background: Direct safety data on hidradenitis suppurativa (HS) medications in HIV is lacking. HS clinicians may feel limited with treatment options in cases of comorbid HIV due to concerns of interactions or exacerbating immunodeficiency.

Objective: To investigate the risk of adverse events (AEs) among patients with HIV exposed to common systemic HS therapies, including antibiotics, anti-androgens, immunomodulators, and biologics.

Method: MEDLINE and Embase were searched, and articles were screened following PRISMA guidelines. Studies were included if they investigated patients with HIV exposed to systemic medications commonly used in the management of HS. Abstracts, studies with LESS THAN 20 patients, and non-English studies were excluded.

Results: 289 articles were screened by title and abstract, 41 underwent full-text review, and 17 studies comprising 2788 patients were included (antibiotics: 7, metformin: 6, glucocorticoids: 3, anti-TNFs: 1). Co-trimoxazole, dapsone, and doxycycline were generally well-tolerated and reduced incidence of secondary infections. However, rifampin decreased levels of lopinavir and efavirenz when co-administered, and increased risks of transaminitis and hyperbilirubinemia. No serious AEs were reported on metformin use in patients with HIV and insulin insensitivity. Gastrointestinal AEs were more common at higher metformin doses, but with proportions comparable to the general population. No significant difference in overall AEs, CD4+ count, and/or viral load were seen with short courses of prednisone or anti-TNFs.

Discussion: Aside from rifampin-antiretroviral CYP interactions, no significantly increased AEs were observed with the use of systemic HS medications. HS medication choice in comorbid HIV should also consider additional prophylaxis against secondary infections and potential survival benefit.



3000306 - The Impact of Tobacco on Wound Healing in Hidradenitis Suppurativa: A Systematic Review

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Background: Hidradenitis suppurativa (HS) frequently requires surgical intervention. Tobacco use is associated with HS, with 70-89% of HS patients reporting smoking. Generally, smoking is linked to poor surgical outcomes; however, the impact on HS surgical outcomes is unclear.

Objective: We conducted a systematic review analyzing whether smoking affects surgical outcomes in HS.

Method: A systematic review was performed on December 28, 2022 using Embase, PubMed, Scopus, and Web of Science. Search terms included "hidradenitis suppurativa" AND "surgery" OR "acne inversa" AND "surgery".

Results: We identified 4,348 articles, screened 2,502, and completed a full-text review of 363 articles of which 22 articles met inclusion criteria. Overall, there were 3,105 patients, of whom, 1,543 were smokers, 50 ex-smokers, and 1 study did not differentiate between former and current smokers. Of the 22 articles, 15 had statistical analysis conducted on 2,734 patients of which 49% (n=1,328) were smokers. None of these 15 studies showed a statistically significant association between smoking and poor surgical outcomes. The 7 studies without statistical analysis included 371 patients, with 58% (n=215) smokers. Across these studies, complications in smokers vs non-smokers included delayed healing: 1.4% vs 0%, recurrence: 14.8% vs 8.3%, dehiscence: 3.2% vs 0%.

Discussion: While tobacco cessation is recommended for surgical procedures, there is no evidence that tobacco use is associated with poor surgical outcomes in HS. There is no justification to delay HS surgery for smoking cessation as tobacco use is not a barrier for access to HS surgeries.



3000308 - Evaluating Physical Fitness Deficits in Hidradenitis Suppurativa: An Initial, Cross-Sectional Study

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Background: Obesity and metabolic syndrome are common comorbidities with Hidradenitis Suppurativa (HS). Weight loss alleviates both these conditions and has been shown to improve HS severity. However, the nature of HS limits patients' ability to meet recommended exercise guidelines.

Objective: Assess baseline strength and endurance in people with HS.

Method: 42 adults with HS underwent functional strength and endurance assessment using 30-second chair stand testing (CST), dynamometric handgrip strength testing (HST), 6-minute-walk test (6MWT), and International Physical Activity Questionnaire (IPAQ). Pain was assessed using Visual Analog Scale (VAS). Patient characteristics were described using univariate statistics. Bivariate and multivariate analysis were used to compare strength and endurance across those with mild versus moderate-to-severe HS (IHS-4).

Results: Subjects were 76.2% female, 40.5% white, 42.9% black, and 64.3% obese with an average age of 32.6 ± 10.9 . HS severity was 45.2% mild, 28.6% moderate, and 26.2% severe. Overall, testing revealed 57.1% abnormal CST and 7.1% weak HST. The mean 6MWT distance was 73.1 \pm 18.4% of predicted. IPAQ categories were 19% low, 35.7% moderate, and 45.2% high. Mean pain scores were significantly lower in mild disease (Mild: 0.4 ± 0.9 , Moderate-to-severe: 4.0 ± 4.4 , p=0.002). Those with mild disease scored higher on 6MWT and were 3 times as likely to have a normal CST, however statistical significance was not reached.

Discussion: Patients with HS have reduced strength and endurance which is independent of disease severity. Investigation with larger populations should be completed to further assess the possible association of physical fitness with disease severity.



3000332 - Surgical Management of Hidradenitis Suppurativa: Risks and Outcomes

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Background: Hidradenitis Suppurativa (HS) is a chronic inflammatory skin condition predominantly affecting skin folds, presenting a challenge in management due to its progressive nature. While initial treatment emphasizes medical approaches, severe cases often necessitate surgical interventions such as Incision and Drainage, Deroofing, Local or Wide Excision, Cryoinsufflation, and Laser Therapies.

Objective: This study aims to review recent literature on the aforementioned surgical techniques, their risks, and outcomes in treating HS and patient quality of life.

Method: PubMed was systematically searched for studies on "hidradenitis suppurativa" and "surgery" from 2013 to 2024. Among 205 publications identified, 22 studies met inclusion criteria, addressing patient characteristics, reconstructive techniques, and outcomes. Studies with fewer than 10 patients were excluded.

Results: Surgical techniques exhibit varying recurrence rates: Incision and Drainage (~100%), Local Excision (22%), Wide Excision [13% (6-15% +/- flap usage), Deroofing (17%), Laser Therapy (29%), Cryoinsufflation (N/A). Overall complication rates for surgical treatment of HS are estimated at 11.1% (95% CI, 6.4%-16.9%), with a recurrence rate of 16.2% (95% CI, 9.1%-24.9%). Deroofing presents the highest complication rate at 13.9% (95% CI, 2.2%-33.2%).

Discussion: Medical management is typically effective in mild HS, while surgical intervention is more beneficial in advanced stages, particularly when treated with Wide Excision. Patient-specific factors like autoimmune conditions and obesity significantly influence treatment efficacy and satisfaction. The choice of procedure should be individualized. Ongoing research into multidisciplinary therapies and advanced surgical techniques aims to redefine HS management standards.



3000387 - Management of Hidradenitis Suppurativa in the Inpatient Setting: A Single-Center Prospective Study.

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Background: Patients with hidradenitis suppurativa (HS) are infrequently admitted for inpatient care. However, prospective studies that determine if admission is beneficial are lacking.

Objective: We hypothesize that inpatient admission improves care for severe HS by offering pain management, advanced imaging, multispecialty interventions, and consultations.

Method: In a single center, prospective study, we studied adults with HS admitted for at least 24 hours. We collected data on demographics, medical history, disease severity, quality of life, pain, and management at admission and discharge.

Results: Among 16 admissions, majority were women (56.3%), African American (68.8%), with mean age 37.8 years, and 33.6 kg/m² body mass index. Most had Hurley stage III disease (93.8%), mainly affecting the lower body (75%). Initial International Hidradenitis Suppurativa Severity Score System (IHS4) score was 39.1, pain averaged 9.6 on a visual analog scale of 10, and 62.5% had saturated drainage. Treatments included intravenous steroids (81.3%), intravenous antibiotics (93.75%), and opioids (66.67%). Ultrasound and computed tomography were utilized on 43.75% and 37.5% of patients, respectively. Procedures included incision and drainage (25%) and excision (6.24%). Dermatology admissions had a shorter stay (5.22 days) than internal medicine (9.33 days, p = 0.003 At discharge, IHS4 score improved to 30.7 (p=0.001), pain to 5.0 (p LESS THAN 0.001), and drainage improved for all.

Discussion: Albeit small, this is the first prospective study on inpatient care for HS. We show that inpatient admission improves care for severe HS through enhanced pain management, imaging, and multispecialty interventions. We suggest dermatological expert input is critical for effective and efficient care.



3000214 - Understanding the Impact of Stigma in an Online Community of Hidradenitis Suppurativa Patients

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Background: Research suggests that people with hidradenitis suppurativa (HS) often feel stigmatized.

Objective: To evaluate the source, dynamics, and impact of internal and external stigma in HS.

Method: 350 members of myHSteam completed a survey in May 2023. Respondents were 21+, had a diagnosis, and had 1+ HS lesion in the past six months. Most had Hurley Stage II (44%) or III (39%).

Results: 84% of respondents experienced stigma or shame from external bias or internal perceptions. 49% experienced perceptions of stigma in the previous year during a relationship, social interaction, medical care, or at work/school (external bias).

Individuals experiencing external bias were significantly more likely to say HS negatively affected quality of life in the past 3 months (60% vs 43%), intimacy (72% vs 53%), socializing (64% vs 33%), going to work or school (46% vs 22%), receiving medical care (46% vs 22%), and leaving home (50% vs 22%, all P-values LESS THAN 0.05) compared to those who had not experienced external bias.

Respondents reporting external bias were also significantly more likely to experience internalized skin stigma including being less likely to feel like their "true" self (64% vs 39%), more likely to feel ashamed (61% vs 37%), and increased depression (68% vs 46%) and anxiety (69% vs 46%, all P-values LESS THAN 0.05).

Discussion: Patients with HS who experience external bias have worsened quality of life, self-esteem, and mental health. Understanding these associations may guide HCP-patient communication and influence interventions to improve care.

Acknowledgements: Study conducted by MyHealthTeam, funding - UCB Pharma. Thanks to Melissa Butt, DrPH.



3000216 - HS impacts sexual health, breastfeeding, and access to care: barriers identified in a global survey.

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Background: Data on the impacts of HS on sexual health, pregnancy, and breastfeeding are limited.

Objective: Describe the impacts of HS on sexual health, pregnancy, and breastfeeding in women of childbearing age and characterize barriers to accessing HS care during pregnancy and breastfeeding.

Method: In a cross-sectional survey from June 13-30, 2021, eligible participants were 18+ years-old, female, and had confirmed HS diagnosis by provider or validated screening questions. Fisher's exact and Pearson chi-squared tests were used for statistical analysis.

Results: Of 808/1040 eligible female respondents from 5 countries, 74.3% were White, 8.3% Black, 2.4% Asian, 5.3% Hispanic. Difficulties with sexual activity (80.9%,n=654) and reduced desire for sexual activities (66.7%,n=539) were associated with difficulty accessing dermatologic care and disease severity (p LESS THAN .05 for all). Of the 526 (65.1%) with a history of pregnancy, race was associated with the inability to find a provider knowledgeable about treating HS during pregnancy (p=.01). 56.5% (297/526) chose to breastfeed, and 15% (79/526) reported that HS interfered with breastfeeding ability. The top barriers to care during pregnancy and breastfeeding included believing nothing could be done for HS during pregnancy (31.6%,n=94), not yet receiving a diagnosis of HS (20.5%,n=61), and inability to find a knowledgeable provider (18.2%,n=54). Impaired sexual health was associated with access to care limitations, increased disease activity, and comorbid depression and anxiety.

Discussion: Pregnant people with HS face unique barriers to accessing care during pregnancy and breastfeeding that may be improved with timely HS diagnosis and improved provider knowledge of HS treatments that are safe during pregnancy and breastfeeding.



3000217 - HS pain is associated with race, QoL, and access to care: barriers identified in a global survey.

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Background: HS pain is the most burdensome symptom and a primary factor in poor quality of life (QoL).

Objective: Describe HS pain severity and associated factors and evaluate barriers to HS pain management.

Method: In a cross-sectional survey from June 13-30, 2021, eligible participants were 18+ years old, confirmed HS diagnosis by a provider or validated screening questions, and completed pain-related questions. Linear regression was used to investigate factors associated with pain on average (avgPain) categorized into mild (Numeric Rating Scale (NRS) 3 or less), moderate (NRS 4-6), and severe (NRS 7 or greater)), including age, race, QoL (Skindex Mini Score), care access, and patient global assessment (PtGA).

Results: 890/1040 eligible respondents resided in 5 countries. 96.9% were female, 74% White, 8.3% Black, and 2.6% Asian. Those with moderate and severe avgPain reported poorer QoL than those with mild (coef=3.79, Cl[3.17,4.41] vs coef=5.24, Cl[4.58,5.90]). Higher avgPain was independently associated with younger age (coef=-0.02, Cl[.03,-.01]), Asian race (coef=1.32, Cl[.50,2.14]), very difficult access to care (coef=.80, Cl[.40,1.20]), and very severe PtGA (coef=4.03, Cl[3.46,4.61]). Top-ranked barriers to pain management were the provider not asking about pain or pain management, the provider's lack of knowledge of pain management, and the perception that the provider is unwilling to provide pain treatment.

Discussion: Pain severity was associated with sociodemographic factors, care access, and disease severity. Top barriers to obtaining pain management relate to healthcare professional inquiry, limited provider knowledge, and stigma. Screening for pain in all patients with HS, with a focus on at-risk groups, may improve HS care.



3000218 - Exploring Demographics and Socioeconomic Status in Pediatric Hidradenitis Suppurativa

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Background: Literature addressing hidradenitis suppurativa (HS) in the pediatric population remains limited. Furthermore, very few studies address the socioeconomic factors that affect pediatric HS patients.

Objective: The purpose of this study is to analyze how socioeconomic and demographic factors, including income, WiFi access, and financial assistance eligibility, affect access to HS care for pediatric patients.

Method: We conducted a retrospective cohort study of pediatric patients diagnosed with HS in a single academic center. Statistical analyses, including T-tests and multivariable regression modeling, were performed to assess the relationships between these factors and outcomes.

Results: A total of 261 patients, 62.13% Hispanic or Latino, 17.28% Black or African American, White 10.66%, and Asian 2.57%, were included in this study. Those living in a zipcode with a higher median household income had an increased number of clinical encounters (β =3.4635, p=0.002) and use of laser hair removal (β =1.6265, p=0.008). Patients with WiFi access had more frequent clinical encounters (β =1.3115, p=0.016) and had their initial clinic visit at a younger age(β =-0.4545, p=0.001). Patients who qualify for additional financial assistance had a significant association with a later initial clinical encounter (β =2.5115, p=0.002).

Discussion: Our study suggests socioeconomic disparities may impact the type and timing of HS care for pediatric patients. It provides a foundation for future research involving larger cohorts to further capture the dynamics of pediatric HS management.



3000246 - Impact on Pain and Mental Health in Patients with Hidradenitis Suppurativa: The HS Uncovered Survey

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Background: HS Uncovered was a global, cross-sectional, real-world survey evaluating patients' unmet needs in hidradenitis suppurativa (HS).

Objective: Report impact on pain and mental health in people with HS.

Method: Online survey, including Dermatology Life Quality Index (DLQI) and Hospital Anxiety and Depression Scale (HADS) tools, was completed in six countries by adults who self-reported a diagnosis or suspected diagnosis of HS.

Results: Effect of HS on DLQI (N=425 with HS diagnosis): 41% reported a very large effect, while 28% reported an extremely large effect. Effect on HADS: 53% and 29% reported abnormal anxiety and depression, respectively. Satisfaction with painkillers as main treatment (N=33): 24% responded 'satisfied', while 36% responded 'not satisfied and I believe better control can be achieved'.

Correlation analysis (N=556 with HS diagnosis and suspected HS): delayed dermatologist consultation resulted in self-managing symptoms, including painkillers. People experienced pain prior to initial HCP consultation. When initial consultation was delayed, 35% treated by a non-dermatologist reported 'a lot', while 38% treated by a dermatologist reported 'a little' pain.

Despite current treatment options at the time of the study (except antibiotics), patients experienced abnormal anxiety, particularly when switching from: biologics to another non-biologic option (67%), non-biologics to antibiotics (47%), painkillers/anti-inflammatory drugs/surgery to painkillers (50%).

Discussion: People with HS self-manage symptoms using temporary relief as many experience high pain levels before initial HCP consultation and when care is delayed. Patients continue to experience high pain levels despite treatment with painkillers. Many live with anxiety/depression, highlighting the importance of managing mental health.



3000248 - Impact of HS on Work and Productivity: Results from the HS Uncovered Global Patient Survey

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Background: An understanding of the effects of hidradenitis suppurativa (HS) on patients' work and daily life is limited. HS Uncovered was a global, cross-sectional, real-world study evaluating patients' unmet needs in HS.

Objective: To report findings from the global HS Uncovered study on the impact of HS on work productivity.

Method: Adults in six countries (France, Germany, Italy, Spain, United Kingdom, United States) who self-reported a diagnosis or suspected diagnosis of HS completed an online survey comprising multiple tools between December 2022 and March 2023. The work productivity and activity impairment (WPAI) questionnaire was applied in five countries (Spain not included). The current analysis reports on employed patients who completed the WPAI questionnaire.

Results: In total, 399 diagnosed and suspected patients were included in the current analysis. In total, 19% of work time was missed (absenteeism) and there was 44% impairment while working (presenteeism) due to HS in diagnosed patients (N=302). The percentage of work productivity loss and activity impairment was 52% and 48%, respectively, in diagnosed patients (N=302). Overall (N=399), females reported a lower work productivity loss than males (absenteeism: male [26%], female [14%]; presenteeism: male [54%], female [40%]; work productivity loss: male [64%], female [47%]; activity

impairment male [55%], female [45%]). Diagnosed patients (N=302) reported a mean of eight hours missed from work over the past seven days due to HS.

Discussion: HS has a substantial impact on presenteeism, overall work impairment, and activity impairment. The impact of HS on work impairment appears greater in males than females.



3000266 - Gaining Patient Feedback on a Proposed Clinical Trial in Hidradenitis Suppurativa

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Background: Simulated clinical trials may identify issues in advance of an actual study. Hidradenitis suppurativa (HS) is a rare, debilitating dermatological disease with high disease burden and unmet treatment needs.

Objective: This study aimed to gather patient feedback on the proposed design and conduct of a phase 2 HS clinical trial.

Method: Feedback was gathered from virtual patient visits and advisory group meetings from six adults with HS, one carer of a HS patient, and one HS patient organization representative.

Results: Participants explained they would more likely enter a HS trial if their chance of receiving the active drug rather than placebo was increased and if those randomized to placebo were given the chance to receive the active drug later. Pain-relief medication access during the trial was important, and trial endpoints should include measures of pain, flares, fatigue, and drainage from lesions. However, quantifying the total number of HS lesions as an endpoint was less meaningful than documenting the number of lesions appearing in new areas. Furthermore, patient materials should be supplied in different media formats to ensure informed participation. Psychological support and ongoing information dissemination during the trial would help patients prepare for study visits and support their wellbeing. The provision of wound-care kits was encouraged, as were online trial visits and short in-person visits scheduled outside of normal working hours.

Discussion: The feedback influenced the design of a phase 2 HS clinical trial (NCT04762277) and contributed to faster-than-expected patient recruitment. Therefore, a patient-centric approach in clinical trials may improve recruitment and patient engagement.



3000270 Expert Opinion on Managing Psychosocial Comorbidities in Pediatric Hidradenitis Suppurativa Camryn Schroeder¹, Cassidy Nguyen¹, Sasha Jaquez², Lucia Diaz³

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Background: Previous studies demonstrate that pediatric Hidradenitis Suppurativia (HS) is accompanied by several psychosocial comorbidities including depression, anxiety, and decreased quality of life (QoL). Although these associations are well-documented, no studies exist on management of the psychosocial impacts of HS on patients, especially in pediatrics.

Objective: Our objective is to provide an expert opinion on several interventions useful in the psychosocial comorbidities of pediatric HS.

Method: With few pediatric psychologists experienced in psychodermatology practicing in the United States, no literature exists on the management of psychosocial comorbidities. Instead, we present an expert opinion from a pediatric psychologist with UT Health Austin Pediatric Psychiatry at Dell Children's who is integrated into the pediatric dermatology clinic.

Results: Cognitive behavioral therapy (CBT) is an evidence-based treatment and often first-line in addressing anxiety and depression by changing the beliefs or behaviors at the root of these disorders. Acceptance and commitment therapy (ACT), another type of evidence-based therapy, utilizes acceptance and mindfulness to reconcile the chronicity of HS. We believe a combination approach of CBT and ACT is useful in decreasing the psychosocial burden. Implementation of evidence-based pain management techniques can also improve patients' QoL.

Discussion: Since literature is scarce on the management of psychosocial impacts of pediatric HS, an expert opinion can guide interventions. Providers can promote patient-centered care by considering referral to pediatric psychologists with experience in CBT, ACT, and pain management. Finally, due to the heavy psychological burden of HS on pediatric patients, effective management strategies should be formally investigated and implemented to improve standard of care.



3000281 - Innovative Garment Design for Enhanced Patient Comfort and Wound Care Management for Patients with HS

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Background: Management of hidradenitis suppurativa (HS) often requires frequent and cumbersome dressing changes. Securing dressings can be challenging, particularly in areas with complex anatomy, leading to discomfort, staining of clothing, and mobility limitations. Options to address this problem currently available in the market are limited.

Objective: To understand patient perspectives on daily HS wound care in order to develop a garment that improves and simplifies dressing changes, offers versatility in dressing selection, and enhances overall quality of life.

Method: This project is a collaboration with the University of Texas at Austin School of Design and Creative Technologies. Four patients with severe HS were interviewed to provide insights into daily wound care challenges.

Results: Patients report daily clothing selection is dictated by HS pain and activity. To manage clothing stains, patients report wearing dark-colored clothing, wearing disposable underwear, and requiring numerous dressing changes daily. Other challenges include frequency of needing to purchase new clothing, cost of supplies, finding sufficiently large bandages, managing the challenges of adhesive tape, assistance with dressing changes in hard-to-reach areas, and difficulties with sleeping due to

trying to prevent drainage from staining bedding. All patients report these challenges negatively affect their social life.

Discussion: The daily challenges of wound care for patients with HS is burdensome and negatively impacts quality of life. Patients find it difficult to manage their wounds with what is currently available. The next phase of our study aims to use these insights to design a prototype HS garment that addresses these challenges.



3000286 - Barriers to Insurance Coverage of Biologics for the Treatment of Hidradenitis Suppurativa

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Background: Biologics are a vital therapeutic option for patients with moderate-to-severe Hidradenitis Suppurativa (HS). However, prior authorizations and insurance approval for biologics remain a barrier to patient care.

Objective: To assess the experiences of dermatologists in the United States who specialize in the treatment of HS with regard to biologic prescription access.

Method: An anonymous online survey eliciting questions relating to biologic prescription access was distributed through three dermatologic organizational listservs, two of which are specific to HS specialists.

Results: 51 dermatologists responded to the survey. Respondents report that the majority of their patients have private insurance and the majority (59%) see GREATER THAN 10 HS patients per week with 20% seeing GREATER THAN 20 per week. 84% of respondents report Adalimumab as the most common biologic prescribed, followed by Infliximab (12%), and then Secukinumab (4%). For their most prescribed biologic, the majority of respondents (82%) report receiving an insurance denial, with 14% reporting "always" receiving a denial. The most commonly stated reasons for denial include no documentation of failure of specific topical or systemic medication. When continuation of therapy is being requested, 76% of dermatologists report receiving a denial from insurance, with 22% reporting a denial at least half of the time. 98% of respondents report working with interprofessionals to obtain insurance approval.

Discussion: These results highlight the barriers that dermatologists face in obtaining insurance approval for biologics used to treat HS. Awareness of these findings may support systemic changes to make biologics more accessible to all HS patients.



3000300 - Access to secukinumab for patients with hidradenitis suppurativa versus psoriasis

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Background: Secukinumab was approved for treatment of hidradenitis suppurativa (HS) by the FDA on October 31, 2023. Anecdotally, patients prescribed secukinumab for HS have more difficulty with access compared to those with psoriasis.

Objective: Evaluate potential disparities in access to secukinumab for HS versus psoriasis.

Method: We reviewed charts of adult patients newly prescribed secukinumab for HS (starting November 1, 2023) and psoriasis (starting January 1, 2022) through July 11, 2024, from a tertiary referral academic center and a dermatology private practice. Statistical analysis was performed using Chi-squared tests.

Results: 52 patients were included (27 HS, 25 psoriasis). 63% had previously used TNF α -inhibitors. Among the 20 (38%) patients with public insurance (Medicaid or Medicare), 100% ultimately obtained coverage; there was an increased burden of prior authorizations (83% vs 50%) as well as prior authorizations denials requiring appeal (40% vs 0%) in patients with HS vs psoriasis. Among patients with private insurance, significantly more patients with HS ultimately obtained coverage (86% vs 45%); prior authorizations were approved more often for HS than psoriasis (76% vs 9.1%). A different preferred biologic was the most common reason for denial. Co-pays varied widely (range \$0-3202.93).

Discussion: In this dual-center study, insurance coverage of secukinumab for HS has been equal to or better than for psoriasis since FDA-approval. For patients with public insurance, there is an increased burden of prior authorizations and appeals for HS vs psoriasis to obtain coverage. High copays often limit access despite insurance approval.



3000310 - Mind-Body Connection: Perceived Physical Activity and Mental Health in Hidradenitis Suppurativa

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Background: Hidradenitis suppurativa (HS) causes debilitating symptoms affecting both physical and mental health. The mechanism behind the inverse relationship between physical activity and HS severity has not been investigated.

Objective: Investigate perceived physical and mental obstacles to activity in people with HS.

Method: Forty-two adults diagnosed with HS were assessed for demographics, and functional ability using a 6-minute walk test (6MWT). Participants rated perceived exertion using the validated Borg scale, and lesion-associated pain pre- and post-6MWT using the visual analogue scale. Participants

were categorized into two groups: those that reported feeling depressed/ down (FD) based on selfreported Hidradenitis Suppurativa Quality of Life questionnaire responses, and those that did not (control).

Results: In the FD group (N=41 (49%)), 20 adults scored higher for pre-6MWT perceived exertion (8.4 \pm 3.4 vs. (6.2 \pm 0.7, p=0.01) and resting pain (4.4 \pm 3 vs. 0.9 \pm 2.2, p=0.001). Test pain (3.4 \pm 3.4 vs. 1.5 \pm 3.0, p =0.08) and post-6MWT perceived exertion (11.4 \pm 3.3 vs. 9.1 \pm 3.5, p =0.05) measures trended towards significance. Ninety percent of the FD group were men, among whom 70% experienced pain (p= LESS THAN 0.05). Women had a lower overall FD rate (35%), but those reporting pain were 1.4 times more likely to report feeling depressed/down. Feeling depressed/down showed correlations with resting pain (r=0.56, p=0.000), pre-6MWT perceived exertion (r=0.41, p=0.009), and gender (r=-0.047, p=0.002).

Discussion: Healthcare providers must address subjective perceptions of physical activity and mental health status as potential obstacles when making lifestyle recommendations for people with HS.



3000327 - Reasons for Consultation in a Tele Mentoring Project for Hidradenitis Suppurativa in Latin America

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Background: Project ECHO® (Extension for Community Healthcare Outcomes) is a tele mentoring platform for varied pathologies. Argentina is a vast country with difficult access to specialty care. In 2020 we launched the project focused on Hidradenitis Suppurativa (HS). Participation may be through monthly free Zoom® meetings to discuss clinical HS cases and review up to date knowledge of the disease; and a WhatsApp® group for physicians that require real time clinical support.

Objective: The main objective of this study was to assess the clinicians' reasons for consultation in ECHO HS during 2022 - 2023.

Method: We conducted a survey through Whatsapp® using Google forms. It included the type of preferred interaction (Zoom® or Whatsapp®), the reasons for consultation (diagnostic confirmation, deciding on treatment plans, biologic patient preparation and use, or referrals) and most useful Zoom interaction (clinical cases, updates, or both). Only complete surveys were included in the study.

Results: 24 meetings were conducted to discuss 28 clinical cases and update 17 relevant topics. At the end of the study, the instant messaging group included 293 participants. Most of the participants were dermatologists (n=287) and 6 were radiologists specialized in dermatologic sonography. Results for most preferred form was both (Zoom® and Whatsapp®), and the reasons were for help with treatment plans and referrals.

Discussion: As seen by the results of this study, referring to colleagues is the most needed form of consultation as well as receiving guidance on treatment plans, while meetings are meaningful for clinical case discussion and relevant topic updates. This study demonstrates that tele mentoring in HS is useful for clinicians, allowing further research on barriers to accessing specialty care and treatment in our region.



3000331 - Real World Study regarding the Use of a Clinical Decision – Support Digital App for the Management of Chronic Inflammatory Skin Diseases

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Background: Mobile applications in medicine have proved to bridge knowledge gaps and benefit patients. Inmunoskin is a mobile app developed to aid physicians in managing Chronic Inflammatory Skin Conditions (CISC) such as psoriasis (PSO), hidradenitis suppurativa (HS), and atopic dermatitis (AD)

Objective: To describe the usage patterns of the Inmunoskin App among physicians in Argentina

Method: Consultations from December 25th, 2021, to February 12nd, 2024, were analyzed. User demographics and consultation characteristics were retrieved. A comparison of tool usage between CISC specialists and non-specialists was conducted using the Chi-Square test, with statistical significance set at p LESS THAN 0.05.

Results: A total of 1831 active users were registered, with 15,870 queries during the study period. The mean number of queries per app user was 12.1. Regarding user characteristics, the majority were women (80.99%) with a mean age of 40.4 years. The most common specialty among users was dermatology (85.91%), followed by rheumatology (9.56%) and immunology (2.40%), with 48.06% being CISC specialists. Most queries were related to PSO (50.7%). The decision-support tool for treatment assessment was the most frequently used (34.04%), while the immunization assistant was the least used (6.33%). CISC non-specialists utilized the treatment indication tool according to patient comorbidities [p=0.0216, OR 1.52 (1.28-1.80)] and vaccination tool [p=0.0185, OR 1.88 (1.50-2.36)] significantly more often compared to specialists. No other significant differences in tool usage were found between CISC specialists and non-specialists.

Discussion: Inmunoskin has been consistently utilized by physicians in Argentina by CISC specialists and non-specialists. Non-specialists in CISC tended to use tools for selecting therapies based on patient comorbidities and vaccination more frequently.



3000341 - Hidradenitis Suppurativa Accuracy in Textbooks and Board Examination Materials, Across Specialties

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Background: Hidradenitis Suppurativa (HS) continues to remain under-diagnosed and undertreated [1] with diagnostic delays as long as 10 years[2,3].

Objective: Investigate HS content within educational materials and board examination preparatory materials used by HS patient-facing resident physicians across multiple medical specialties.

Method: Educational/reference material, relating to HS, across multiple specialties, was reviewed and evaluated for accuracy. Additionally, specialties were evaluated for inclusion of HS content in board certification examinations.

Results: Of 25 reviewed textbooks and guidelines, 80% contained HS-related material. Fifteen percent mistakenly identified HS as an infection, and 20% incorrectly described it as a disease of the apocrine glands. Only 11 resources recommended comprehensive treatment therapies, of these 72% had either incomplete therapies or ones not currently recommended by HS guidelines[4,5].

Discussion: This study demonstrates the significant gaps and inaccuracies in the educational materials of several medical specialties regarding HS. This may lead to a lack of knowledge or confidence in various physicians' abilities to optimally diagnose and treat HS as well as stigmatization of these patients. A multidisciplinary approach to reviewing and updating educational content are essential to improve the care and outcomes for HS patients.



3000346 - Pain Assessment in Patients with a New Diagnosis of Hidradenitis Suppurativa

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Background: Hidradenitis Suppurativa (HS) is a chronic inflammatory skin condition characterized by recurrent painful nodules, intermittent abscesses and tunnels. Pain management is a critical aspect of HS treatment, yet the extent to which pain is assessed and managed in newly diagnosed patients remains unclear.

Objective: This study aims to evaluate the practices of pain assessment and management in patients with a new diagnosis of Hidradenitis Suppurativa.

Method: A retrospective review was conducted on the medical records of 808 patients newly diagnosed with HS in the VA Health Care System. The 808 were selected for by having hurley staging at their initial visit. hurley staging was found using natural language processing.Data on pain assessment, pain management plans, and prescribed medications were collected and analyzed.

Results: Pain assessment was performed in only 144 (17.9%) of the 808 patients. Among those assessed, pain was addressed in the management plan of 28 (3.5%) patients. Notably, no patients were prescribed pain medications. Over-the-counter medications were recommended to 4 (0.5%) patients, with Ibuprofen being specifically suggested for 2 (0.2%) patients.

Discussion: The findings indicate a significant gap in the assessment and management of pain in patients with newly diagnosed Hidradenitis Suppurativa. Despite the high prevalence of pain in HS, only a small proportion of patients received pain assessment and even fewer had pain management plans or medication recommendations. These results highlight the need for improved pain management protocols to enhance the quality of care for HS patients.



3000349 - Postoperative Pain Management in Hidradenitis Suppurativa: Pain Trends and Non-Narcotic Approaches.

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Background: Hidradenitis Suppurativa (HS) is a chronic skin condition that often requires surgery adjunctive to medical therapies. Effective postoperative pain management is crucial since most patients have multiple involved sites that often require multiple surgical procedures.

Objective: This study investigates the postoperative pain relief strategies and trends in HS patients at one surgical center.

Method: A retrospective cohort study was conducted on 32 patients with Hidradenitis Suppurativa (HS) treated at a tertiary care center between July 2022 and May 2024. Data collected included patient demographics, disease characteristics, prior treatments, symptom assessments, and postoperative pain management regimens. Pain levels were assessed at initial presentation, preoperatively, and at multiple postoperative time points. Descriptive statistics were performed.

Results: Patients showed a significant drop in pain scores by postoperative day 7, with the highest scores on days 0-3. Most were managed without narcotics, and many younger patients used marijuana products. Marijuana users reported lower preoperative pain scores and faster postoperative pain resolution. No adverse effects were noted.

Discussion: Non-narcotic pain management, particularly marijuana products, is effective for postoperative HS patients, especially younger ones. These strategies reduce pain without adverse effects, suggesting a viable alternative to narcotics. Further research is needed to confirm these findings in larger populations.



3000358 - Continuous Care in Specialized Centers Reduces Anxiety and Depression in German HS-Patients

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Background: HS experts in Germany are mainly located in clinics while outpatient care for HS is often insufficient. This creates challenges for patients in finding consistent care, leading to significant dissatisfaction and despair, which exacerbates their anxiety and depression.

Objective: The aim of the EsmAiL trial was to evaluate whether an innovative care concept implemented in specifically trained outpatient centers reduces disease activity and burden.

Method: EsmAiL was conducted as a two-arm, multicentre, prospective, randomized controlled trial including 553 adults with HS. The control group (CG) remained in standard care, whereas the intervention group (IG) was treated according to a trial-specific, multimodal concept including individual patient education.

Results: Of the participants, 274 were assigned to the IG and 279 to the CG, with 377 individuals completing the final assessment. At baseline, 122 patients (60.10%) in the IG and 98 patients (56.32%) in the CG had critical values on the Hospital Anxiety and Depression Scale (HADS). During the year of intervention, significantly more patients in the IG received individual education on risk and trigger factors than patients in the CG (e.g. about stress 70.0% IG vs. 8.8% CG; p LESS THAN 0.01). Moreover, 62% of IG patients felt that their therapy preferences were very well considered compared to only 12% in the CG. The proportion of patients with critical scores in HADS decreased by 33% in the IG, whereas it remained constant for the CG.

Discussion: Continuous treatment in HS-specialized outpatient centers improves shared decision making and decreases anxiety and depression.



3000371 - Photographic Representation of Pediatric Vulvar Hs and Lichen Sclerosus in Peer-Reviewed Articles

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Background: Photography of the genital skin differs from other body sites given the potential for emotional discomfort and shame. When the question of clinical photography arises in pediatric patients, a parent/guardian may consent but patients may see this as unwanted. More broadly, who and when photos are taken has a profound impact on how hidradenitis suppurativa (HS) and lichen sclerosus (LS) are diagnosed and treated.

Objective: To evaluate the characteristics of pediatric patients photographed with vulvar HS and LS in peer-reviewed articles.

Method: We performed a PubMed search using the terms "(Hidradenitis Suppurativa) AND Pediatric" and "(Lichen Sclerosus) AND Pediatric," limited to peer-reviewed articles published in English from January 1994 to July 2024. Articles were reviewed to identify photographs of vulvar disease in pediatric patients (≤18 years). Identified photos and text descriptions were analyzed for age, ethnicity/race, Fitzpatrick phototype/skin color, and Tanner stage.

Results: A total of 345 articles were reviewed. More photos of LS were identified (n=41) than vulvar HS (n=9). A patient's specific age was rarely provided, and few publications (n=5) identified ethnicity/race or Fitzpatrick phototype/skin color. Tanner stage 1 was most common for photos of LS and Tanner stage 4 for HS.

Discussion: Our findings indicate that existing photographic documentation in peer-reviewed literature inadequately addresses representation among pediatric patients with vulvar HS and LS. To ensure the equitable burden and benefits of clinical photography, a widely adopted approach for consent regarding sensitive sites (breast, genital skin, and buttocks) is needed among dermatologists.



3000375 - Hidradenitis Suppurativa Treatment and Perceptions of Hormonal Therapy Benefits and Risks among Us Tiktok Users

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Background: In 2023, TikTok reported having 150 million active monthly users in the United States, with most of these users being female (60%) and young adults (between the ages of 16 and 24).1 In one of the most comprehensive studies of TikTok users to date, a substantial percentage of young women reported intentionally (65%) or unintentionally (92%) obtaining health information from the platform.2

Objective: To examine perceptions of hormonal therapy and hidradenitis suppurativa (HS) treatment among US TikTok users.

Method: We used two naive accounts to perform the following searches: (1) hidradenitis suppurativa birth control and (2) hidradenitis suppurativa birth control side effects. The top 20 videos per search on each account were reviewed. Videos discussing both HS and hormonal therapy/contraception were analyzed for the following: perceptions on hormonal therapy/contraception (reported benefits and side effects), number of views, and number of likes.

Results: From the top videos searched, only 10 explicitly discussed HS and hormonal therapy and/or contraception use. Overall, views expressed on hormonal therapy/contraception were more negative (60%) than positive (20%), with 20% being neutral. Video likes ranged from 14 to 111,800 with an average of 12,231. Video views ranged from 909 to 1,700,000 with an average of 274,379.

Discussion: Young adult females who use TikTok as a source of information on HS treatment are likely to encounter negative perspectives on hormonal contraceptive use. Awareness of prevailing attitudes on popular social media platforms such as TikTok is crucial for shared decision-making and discussions regarding hormonal therapy and contraception in young adults with HS.



3000376 - Piloting a Modified Delphi Process to Enhance Visual-Spatial Design of Shared Decision-Making Tools for Adolescents with Hidradenitis Suppurativa <u>Hong-An Nguyen</u>¹, Sydney Dong¹, Adriana Richmond¹, Stephanie Lee², Aidan Galati¹, Nicolette Pepin¹, Crystal Liang¹, Kaitlyn Lew¹, Afua Ofori-Darko³, George Hightower²

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Background: The visual-spatial design of patient-facing tools for adolescents with hidradenitis suppurativa (HS) has been largely overlooked in medical practice. In contrast, industries such as social media, which engage large numbers of young users, prioritize optimizing visual layouts for collecting and sharing information with users.

Objective: To optimize the visual-spatial design of adolescent HS-focused shared decision-making (SDM) tools using a modified Delphi process.

Method: A modified Delphi process was conducted with the goal of engaging young adult participants (ages 18 to 30 years) who were familiar with HS care but do not hold medical degrees. Consensus rounds evaluated four aspects of visual-spatial design: (1) font style, (2) color scheme, (3) layout orientation, and (4) inclusion of questions on demographics and preferences for patient informational handouts. Consensus was defined by achieving a simple majority.

Results: A total of 13 participants completed the Delphi process, reaching consensus on all design elements. The group selected Helvetica, a sans-serif font, for the text, and a monochromatic color scheme. Despite lengthening the SDM tool, participants supported the inclusion of questions that addressed the following: preferred language of written HS materials, interest in HS support groups, and family's country of origin in addition to race and ethnicity.

Discussion: A modified Delphi process offers a promising approach for involving young adults in the development of adolescent-centered SDM tools. Given that HS often begins in young adulthood, a deeper understanding of age-specific care preferences and needs is crucial for advancing care for those living with HS.



3000379 - Mindfulness Based Stress Reduction for Hidradenitis Suppurativa <u>Caitlyn Dagenet</u>¹, Feliciano Yu², Jennifer L. Hsiao³, Vivian Y. Shi⁴

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Background: Hidradenitis suppurativa (HS) is associated with a higher risk of depression and anxiety. Mindfulness-Based Stress Reduction (MBSR), a meditation and stress reduction program originally designed for pain management, has been shown to significantly improve the Dermatology Life Quality Index (DLQI) score in patients with atopic dermatitis.

Objective: To investigate the effectiveness of MBSR on improving mental health in HS patients.

Method: Participants with HS, a DLQI \geq 6, and stable HS and mental health treatment for three months or greater, were recruited from a single center HS Specialty Clinic. They were enrolled in an 8-week live, online, MBSR program tailored to HS patients and taught by an expert instructor. The program is composed of lectures, meditation, yoga, and mindfulness-based exercises. Changes in DLQI, HS quality of life (HSQoL) survey, Patient Health Questionaire-9 (PHQ-9), and Generalized Anxiety Disorder 7-Item (GAD-7) from baseline were evaluated.

Results: Twenty-five participants consented, 8 completed the MBSR course, and 6 (1 Hurley I, 2 Hurley II, 3 Hurley III). All participants were female, mean age 41.8 years. Four had mental health therapy prior to the MBSR course, and 3 were prescribed antidepressants. Average DLQI improved from 13.3 (week 1) to 8.4 (-4.9) at the end of the 8-week course. Average HiSQOL improved from 29.4 to 23 (-6.4). Average PHQ9 and GAD7 exhibited marginal improvement from 11.1 to 10.3 (-0.8), and from 8.5 to 8.3 (-0.3), respectively.

Discussion: MBSR programs may serve as adjunctive modality to improve HS patients' quality of life. Further studies with large and diverse participant populations are required to establish MBSR as a therapeutic option for HS patients.



3000381 - Cumulative Life Course Impairment in Hidradenitis Suppurativa: A Scoping Review

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Background: Cumulative life course impairment (CLCI) describes the long-term burden of chronic diseases, incorporating physical, psychological, social, and economic impacts. While well-studied in psoriasis, CLCI in hidradenitis suppurativa (HS) remains underexplored. This scoping review aims to address this gap by examining the long-term CLCI associated with HS.

Objective: To conduct a scoping review that investigates the cumulative life course impairment (CLCI) associated with hidradenitis suppurativa (HS).

Method: A literature search was conducted on February 16, 2024, using PubMed, Medline, and Embase with terms related to HS and disease impairment. Out of 2,468 articles, 168 studies were selected based on relevance and statistical significance, including retrospective, prospective, and cohort studies.

Results: The review identified several key areas of cumulative impairment in HS patients, including psychiatric, psychosocial, financial, women's health and sexuality, and metabolic issues. Diagnostic delays were prevalent, particularly in women and severe cases, leading to worsened disease outcomes. Stigmatization significantly contributed to psychological distress, with higher rates of depression and anxiety. Financial burden further impacted quality of life. Work-related challenges, including absenteeism and reduced productivity, were consistently reported. Additionally, metabolic disease and psychiatric comorbidities were common, exacerbating overall impairment. These factors cumulatively affected patients' long-term health, emphasizing the need for earlier diagnosis and comprehensive support strategies.

Discussion: The findings highlight the extensive CLCI in HS, affecting various life aspects. The ongoing and increasing burden necessitates a comprehensive management approach. Future research should focus on longitudinal studies to better understand and address the cumulative burden faced by HS patients. Enhanced awareness and targeted interventions could improve their quality of life and management strategies.



3000382 - Patient and Care Partner Perspectives on Intervention Design for Pain in Hidradenitis Suppurativa

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Background: Background: Pain is rated by patients with hidradenitis suppurativa (HS) as their most important symptom, yet many patients have reported self-treating their pain using dangerous methods. Work is needed to improve patient-centered strategies for managing HS pain.

Objective: To explore patient and care partner perspectives on unmet needs for HS pain management and preferences for delivery of care.

Method: Semi-structured interviews were conducted among English-speaking patients participating in an ongoing prospective cohort study of ≥18 olds with moderate-to-severe HS and their caregivers. Participants were purposively sampled based on pain chronicity (acute vs chronic) and pain type (neuropathic vs. nociplastic). 19 interviews (10 patients and 9 caregivers) were audio-recorded and transcribed verbatim. Emerging themes were identified, and interviews will continue until thematic saturation is reached.

Results: Many participants expressed a desire for their healthcare providers to proactively ask about and discuss pain management options. Self-efficacy was identified as a crucial element in managing pain, with desire for as-needed medications to be self-administered at home during painful flares. Care partners reported feelings of helplessness when trying to assuage pain experienced by their loved ones. Some care partners also noted that their loved ones concealed their pain symptoms, making it more difficult to help.

Discussion: Understanding patient and care partner perspectives on unmet needs for HS pain management will elucidate current gaps in patient care, strengthen patient-provider communication, and inform strategies to involve care partners in treatment plans. Addressing as-needed, at-home pain management for flares will be important for improving pain control in this population.



3000388 - Exploration of Pain Trajectories Utilizing the PainDetect Questionnaire in Hidradenitis suppurativa

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Background: Pain is the most bothersome symptom of hidradenitis suppurativa (HS), yet little is known about HS pain trajectories over time.

Objective: (1) To explore HS pain trajectories over time and (2) To assess inter-rater reliability of HS pain trajectories using the PainDetect questionnaire.

Method: HS patients aged ≥18 rated their average and maximum pain daily over 16 weeks. These ratings were graphed over time and categorized by two independent raters according to the PainDetect's trajectories: (1)'Persistent pain with slight fluctuations,' (2)'Persistent pain with pain attacks/pain attacks with pain between them' and (3)'Pain attacks without pain between them'. Interrater reliability was assessed using Cohen's Kappa.

Results: A majority female (95%) and Black/African American (90%) individuals participated (n=20). Rater 1 classified 1 (5%), 10 (50%), and 9 (45%) participants into categories 1, 2, and 3, respectively. Rater 2 classified 3 (15%), 9 (45%), and 8 (40%) participants into the same categories, respectively. Both raters classified a majority of participants (95% and 85%) into categories described with 'pain attacks'. Categories assigned by the two raters exhibited fair agreement (k = 0.40) [95% CI: 0.087 -0.72]; P = 0.022.

Discussion: Overall agreement between raters for HS pain progression using PainDetect suggested only fair reliability in these preliminary results. Pain trajectories that included 'pain attacks' were overwhelmingly selected by raters, highlighting the need for pain management that plans to address acute HS flares. There is additional need to explore and enhance tools to correctly identify pain character and progression in patients with HS.



3000389 - Pain Catastrophizing in Patients with Hidradenitis Suppurativa (HS) <u>Meron Siira¹, Lauren Orenstein²</u>

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Background: Pain catastrophizing is a strong predictor of adverse pain outcomes and is associated with increased pain severity. Reducing pain catastrophizing improves pain, emotional distress, and disability, highlighting its critical role in both predicting and influencing pain outcomes beyond severity alone. While pain is ranked by patients as their number one most important symptom, little is known about pain catastrophizing in patients with HS.

Objective: To assess pain catastrophizing in patients with HS and examine relationships between pain catastrophizing, pain interference, and other factors (i.e. disease severity, QoL measures).

Method: Patients with HS aged ≥18 years completed the validated Pain Catastrophizing Scale (PCS), the Brief Pain Inventory (BPI), the Hidradenitis Suppurativa Quality of Life instrument (HiSQOL) as part of a prospective cohort. Higher scores of PCS, BPI, and HiSQOL indicate higher levels of catastrophizing, pain interference, and QoL impairment, respectively.

Results: Of 20 participants, most were female (95%) and Black or African American (90%). Clinically significant pain catastrophizing (\geq 30) was present in 40% of participants with a median PCS of 25 [IQR: 29]. Clinically significant pain catastrophizing was associated with higher BPI and HiSQOI scores (P LESS THAN 0.01), but not disease severity.

Discussion: These preliminary results demonstrate associations between pain catastrophizing and QoL measures in patients with HS. Recommending psychological, psychiatric, and/or behavioral interventions to help manage pain catastrophizing in HS may be effective in reducing poor pain-related outcomes. More work is needed to identify the impact of pain catastrophizing on pain severity and pain-related outcomes in people with HS.



3000290 - Intra-Rater Agreement of Lesion Counts in Hidradenitis Suppurativa Bria Midgette¹, <u>Kelly Frasier</u>², Andrew Strunk¹, Amit Garg¹

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Background: Adequate intra-rater agreement is essential to ensuring that differences in recorded hidradenitis suppurativa (HS) lesion counts reflect true changes in disease activity. However, absolute agreement between repeated measures by the same rater in stable patients has not been investigated.

Objective: To evaluate intra-rater agreement of lesion count measurements between screening and baseline in two Phase 3 clinical trials of HS patients – PIONEER I and PIONEER II.

Method: Intra-rater agreement was quantified using the following metrics: 1) standard error of measurement (SEM); 2) non-parametric limits of agreement; 3) within-subject coefficient of variation (CV); 4) proportion of cases where the difference between screening and baseline count exceeded 1,2,3 or 4.

Results: A total of 306 patients in PIONEER I and 326 patients in PIONEER II were included. The SEM for total AN count was 4.1 and 4.4 in PIONEER I and II, respectively. The 80% limits of agreement for AN count were -5 to 5 in PIONEER I, and -4 to 4 in PIONEER II. The within-subject CV was approximately 29% for both trials. In PIONEER I and II, SEM for abscess count was 1.4-1.5 and 1.4-1.6 for draining fistula count. Screening and baseline abscess counts differed by 3 or more for 16% of patients in PIONEER I and for 14% of patients in PIONEER II. Screening and baseline draining fistula counts differed by 3 or more for 16% in PIONEER I and 12% in PIONEER II.

Discussion: There was substantial disagreement between repeated lesion counts by the same rater.