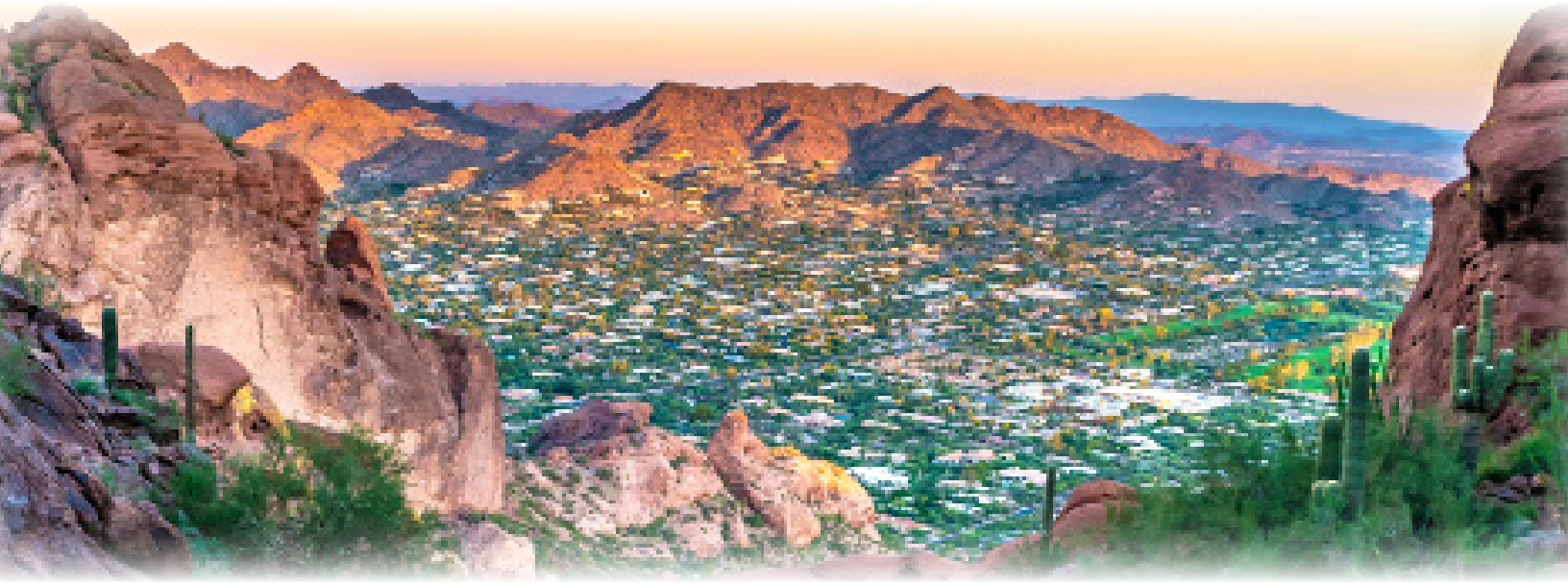
SHSA 2023

Program



October 13-15, 2023

Renaissance Phoenix Downtown Hotel

Hidradenitis Suppurativa Foundation, Inc.

CHSF
CANADIAN HIDRADENITIS SUPPURATIVA FOUNDATION

SYMPOSIUM ON HIDRADENITIS SUPPURATIVA ADVANCES

SHSA 2023

Table of Contents

Welcome from Co-Chairs

Dear SHSA Colleagues,

Welcome to our 8th Annual Symposium on Hidradenitis Suppurativa (HS) Advances meeting co-hosted by the Hidradenitis Suppurativa Foundation (HSF)] and the Canadian Hidradenitis Suppurativa Foundation (CHSF).

We have put together another extraordinary and innovative learning opportunity for physicians and patients seeking to learn all about the advancements being made for individuals living with HS. Our program continues to feature the most brilliant minds in the field of HS, and the symposium has been tailored to provide ample time for networking, plenary sessions, poster presentations and HS industry partners to connect.

Plenary sessions will explore how social determinants of health impact HS populations, the microbiome/microbiology of HS, and HS in the pediatric landscape. Additionally, this year we've added two panel discussions that will address combination therapy cases and outcomes in research.

We are so excited to see you again this year in the sunny city of Phoenix, Arizona!

Sincerely,

Ralph George, MD, FRCS—Chair, SHSA Planning Committee
Associate Professor, General Surgery,
University of Toronto, Toronto, ON, Canada

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

Planning Committee

CO-CHAIRS:

Ralph George, MD, FRCS, Associate Professor, General Surgery, University of Toronto, Toronto, ON, Canada

Stephanie Goldberg, MD General Surgeon, Mary Washington Healthcare, Fredericksburg, VA, USA

COMMITTEE MEMBERS:

Patricia Coutts, Registered Nurse at Toronto Wound Healing Centre, Toronto, ON, Canada

Steven Daveluy, MD, FAAD, Associate Professor and Program Director, Department of Dermatology, Wayne State University, Detroit, MI, USA

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

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

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

Joslyn S. Kirby, MD, MS, MEd, President, Hidradenitis Suppurativa Foundation (HSF), Associate Professor, Department of Dermatology, Pennsylvania State, Hershey, PA, 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

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

Richard Usatine, MD, Assistant Director of Medical Humanities Education, University of Texas Health Science Center, San Antonio, TX, USA

Se Mang Wong, MD, FRCPC, Clinical Associate Professor, UBC Department of Dermatology and Skin Science, Vancouver, BC, Canada

Thank you to our incredible sponsors who helped make this meeting possible!

PLATINUM:

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GOLD:

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AbbVie Medical Affairs
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Partner Organizations

THE ASSOCIATION OF HIDRADENITIS SUPPURATIVA AND INFLAMMATORY DISEASES

HIDRADENITIS HS SELINA

Hope for HS

Hidradenitis & Me Support Group

HSCONNECT.ORG

HS Ireland
Hidradenitis Suppurativa Association

HS HEROES

International Association of Hidradenitis Suppurativa Network, Inc.

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.

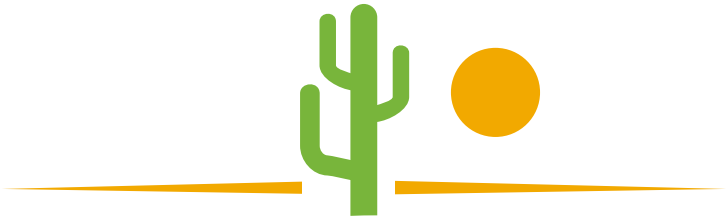
The Pennsylvania Medical Society designates this live activity for a maximum of *11.75 AMA PRA Category 1 Credit(s)*™. Physician should only claim credit commensurate with the extent of their participation in the educational activity.

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

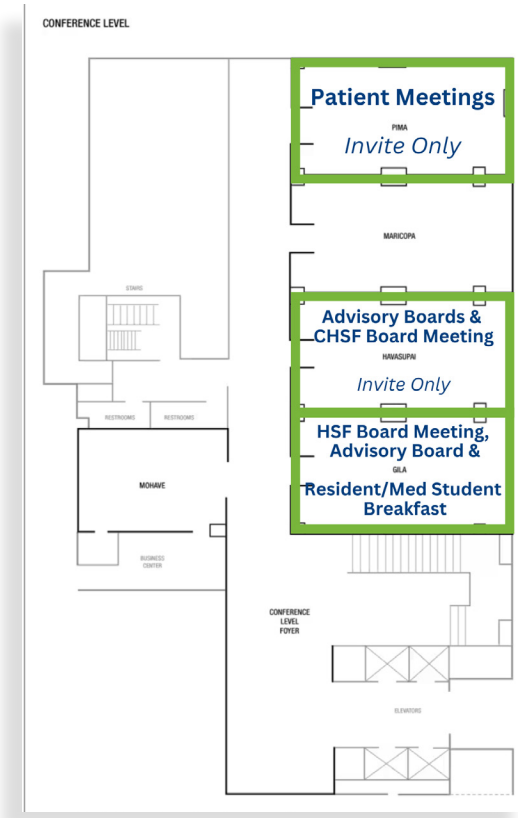
Canadian Royal College—International CPD/MOC Recognition

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.

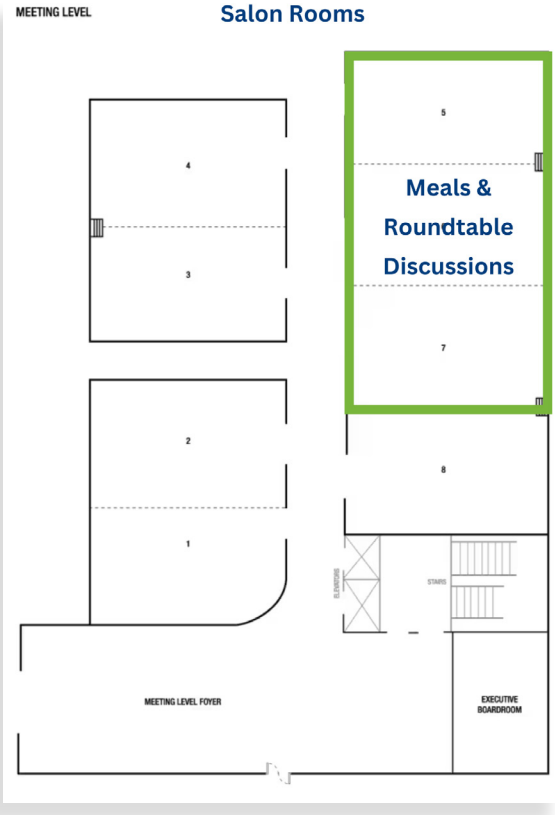
Credits for these CPD activities can be converted between the Royal College and international CPD accreditation systems, allowing physicians to record credits for their global CPD learning. The requirements and accreditation statement for each agreement are listed below.The Royal College credit recognition 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.



Hotel Map



Salon Rooms



Agenda

Session times are noted in Mountain Standard Time

THURSDAY, OCTOBER 12, 2023	
12:00 p.m. – 9:00 a.m.	**HS Foundation Board Retreat** *Gila*
FRIDAY, OCTOBER 13, 2023	
8:00 a.m. – 12:00 p.m.	**Incyte Advisory Board *(Invitation Only)*** *Havasupai*
12:00 p.m. – 1:00 p.m.	**Visit Sponsors & Poster Viewing** *South Ballroom*
1:00 p.m. – 1:15 p.m.	**Welcome** **Ralph George, MD, FRCS & Stephanie Goldberg, MD** *North Ballroom*
1:15 p.m. – 1:45 p.m.	**PLENARY TALK 1—Hamzavi Lecture: Health Care Disparities, Social Determinants of Health, and How These Impact HS Populations** **Ginette Okoye, MD** *Moderated by Drs. Ralph George & Stephanie Goldberg*
1:50 p.m. – 3:30 p.m.	**Oral Abstract Presentations with Q&A** *Moderated by Drs. Ralph George & Stephanie Goldberg*
3:30 p.m. – 3:40 p.m.	**Visit Sponsors & Poster Viewing** *South Ballroom*
3:40 p.m. – 5:10 p.m.	**Oral Abstract Presentations with Q&A** *Moderated by Dr. Martina Porter & Athena Gierbolini*
5:15 p.m. – 5:40 p.m.	**Panel—Case-Based Combination Therapy Cases** **Noah Goldfarb, MD, FAAD · Jennifer Hsiao, MD · Christopher Sayed, MD** *Moderated by Dr. Martina Porter & Athena Gierbolini*
5:40 p.m. – 5:50 p.m.	**Panel Q&A** *Moderated by Dr. Martina Porter & Athena Gierbolini*
6:00 p.m. – 7:30 p.m.	**Welcome Reception** *Skyline—Located on the 5th floor of the hotel tower.*

Agenda

Session times are noted in Mountain Standard Time

SATURDAY, OCTOBER 14, 2023	
6:30 a.m. – 8:30 a.m.	**Novartis Advisory Board *(Invitation Only)*** *Havasupai*
7:00 a.m. – 8:15 a.m.	**Incyte Patient Panel *(Invitation Only)*** *Pima*
7:30 a.m. - 8:30 a.m.	**Breakfast** *Salon 5-7*
7:30 a.m. - 8:30 a.m.	**Resident/Medical Student Breakfast** *Gila*
7:30 a.m. - 8:30 a.m.	**Visit Sponsors & Poster Viewing** *South Ballroom*
8:30 a.m. – 9:00 a.m.	**PLENARY TALK 2—Microbiome/Microbiology of HS** **Tamia Harris-Tryon, MD, PhD** *Moderated by Drs. Vincent Piguet & Simon Wong*
9:05 a.m. - 10:25 a.m.	**Oral Abstract Presentations with Q&A** *Moderated by Drs. Vincent Piguet & Simon Wong*
10:25 a.m. – 10:40 a.m.	**Awards Presentation**
10:40 a.m. - 11:00 a.m.	**Visit Sponsors & Poster Viewing** *South Ballroom*
11:05 a.m. - 12:00 p.m.	**Oral Abstract Presentations with Q&A** *Moderated by Drs. Vincent Piguet & Simon Wong*
12:00 p.m. – 1:30 p.m.	**Lunch & Roundtable Discussions** *Salon 5-7*
12:00 p.m. - 1:30 p.m.	**Visit Sponsors & Poster Viewing** *South Ballroom*
12:00 p.m. - 1:30 p.m.	**Canadian HS Foundation Board Meeting** *Havasupai*
1:30 p.m. – 2:00 p.m.	**Panel—Outcomes in Research** **Amit Garg, MD · Joslyn Kirby, MD, MEd · Athena Gierbolini** *Moderated by Drs. Jennifer Hsiao & Steven Daveluy*
2:05 p.m. – 3:30 p.m.	**Oral Abstract Presentations with Q&A** *Moderated by Drs. Jennifer Hsiao & Steven Daveluy*
3:30 p.m. - 3:50 p.m.	**Visit Sponsors & Poster Viewing** *South Ballroom*
3:55 p.m. – 5:00 p.m.	**Oral Abstract Presentations with Q&A** *Moderated by Drs. Jennifer Hsiao & Steven Daveluy*
5:00 p.m. – 5:45 p.m.	**Networking Reception** *South Ballroom*
6:00 p.m. – 9:30 p.m.	**UCB Advisory Board *(Invitation Only)*** *Gila*

Agenda

Session times are noted in Mountain Standard Time

SUNDAY, OCTOBER 15, 2023	
8:00 a.m. – 9:00 a.m.	**Breakfast** *Salon 5-7*
8:00 a.m. – 9:00 a.m.	**Visit Sponsors & Poster Viewing** *South Ballroom*
9:00 a.m. – 9:30 a.m.	**PLENARY TALK 3—Pediatric HS: A Case-Based Discussion** **Colleen Cotton, MD, FAAD** *Moderated by Drs. Joslyn Kirby & Ernest Chiu*
9:35 a.m. – 11:10 a.m.	**Oral Abstract Presentations with Q&A** *Moderated by Drs. Joslyn Kirby & Ernest Chiu*
11:10 a.m. – 11:20 a.m.	**Closing Remarks**
11:20 a.m. – 12:00 p.m.	**Visit Sponsors & Poster Viewing** *South Ballroom*

Speaker Information

Colleen Cotton, MD, FAAD

Assistant Professor of Dermatology and Pediatrics, Children's National Hospital; George Washington School of Medicine and Health Sciences

Dr. Colleen Cotton is an Assistant Professor of Dermatology and Pediatrics. She spent three years at the Medical University of South Carolina before joining the team at Children's National Hospital in Washington, DC in 2022. She is board-certified in dermatology and pediatric dermatology. After completing an intern year at St. Christopher's Hospital for Children, she started a clinical research fellowship in pediatric dermatology at the University of California, San Diego. She then completed her dermatology residency at the University of Arizona. Dr. Cotton concluded her training with a pediatric dermatology fellowship at the Children's Hospital of Philadelphia. Her particular clinical interests include hidradenitis suppurativa, hemangiomas, and vascular anomalies, and she runs a multidisciplinary hidradenitis suppurativa clinic for pediatric patients.

Talk Title: Pediatric HS: A Case-Based Discussion
Date: Sunday, October 15
Time: 9:00 a.m. - 9:30 a.m.

Amit Garg, MD

Professor & Founding Chair, Department of Dermatology Zucker School of Medicine at Hofstra Northwell

Dr. Amit Garg is Professor and Founding Chairman for the Department of Dermatology at the Zucker School of Medicine at Hofstra Northwell. He is also Professor in the Center for Health Innovation and Outcomes Research at the Feinstein Institutes for Medical Research. Dr. Garg's subspecialty expertise is interdisciplinary based in caring for patients with autoimmune and inflammatory conditions including hidradenitis suppurativa, psoriasis, lupus, and dermatomyositis. Dr. Garg's funded research interests include identification of comorbidities using 'Big Data', and development of a core outcome set for clinical trials in hidradenitis suppurativa and psoriasis.

Dr. Garg has held leadership roles within national professional organizations, including C3 (CHORD COUSIN Collaboration), HiSTORIC (Hidradenitis Suppurativa Core Outcome Set International Collaboration), Hidradenitis Suppurativa Foundation, the Group for Research and Assessment of Psoriasis and Psoriatic Arthritis, the National Psoriasis Foundation, the Association of Professors of Dermatology, the Medical Dermatological Society, and the American Academy of Dermatology. He is Vice Chair for the Dermatology's Residency Review Committee of the Accreditation Counsel of Graduate Medical Education (ACGME).

Talk Title: Outcomes in Research Panel
Date: Saturday, October 14
Time: 1:30 p.m. - 2:00 p.m.

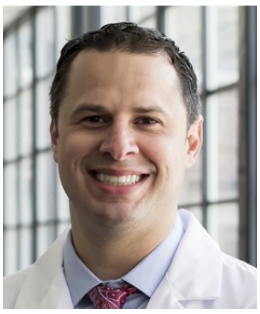
Speaker Information

Athena Gierbolini

Patient; President, Hope for HS

Ms. Athena Gierbolini is a patient living with HS. She is a Director for the HS Foundation and President of Hope for HS. Her advocacy work includes speaking about her patient journey, leading Support Groups and working with HiStoric on Outcome Measures for HS.

Talk Title: Outcomes in Research Panel
Date: Saturday, October 14
Time: 1:30 p.m. - 2:00 p.m.



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: Case-Based Combination Therapy Cases Panel
Date: Friday, October 13
Time: 5:15 p.m. - 5:40 p.m.

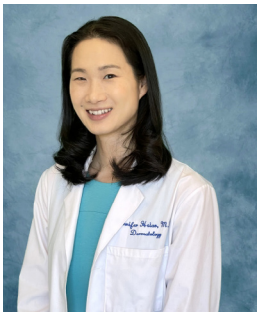
Tamia Harris-Tryon, MD, PhD

Physician-Scientist, UT Southwestern Medical Center

Dr. Tamia Harris-Tryon is a physician-scientist at UT Southwestern and principal investigator of the Harris-Tryon lab in the Department of Dermatology. She earned her MD and PhD at The Johns Hopkins School of Medicine and completed a residency in Dermatology at The Johns Hopkins Hospital. Certified by the American Board of Dermatology, she joined the UT Southwestern faculty in 2014 and completed additional research training in the Howard Hughes laboratory of Dr. Lora Hooper.

Talk Title: Microbiome/Microbiology of HS
Date: Saturday, October 14
Time: 8:30 a.m. - 9:00 a.m.

Speaker Information



Jennifer Hsiao, MD

Associate Clinical Professor of Dermatology, University of Southern California

Dr. Jennifer Hsiao is an Associate Clinical 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: Case-Based Combination Therapy Cases Panel
Date: Friday, October 13
Time: 5:15 p.m. - 5:40 p.m.

Joslyn Kirby, MD, EdD

Associate Professor, Department of Dermatology, Pennsylvania State University

Dr. Joslyn Kirby is a professor of dermatology at Penn State Hershey and President of the Hidradenitis Suppurativa Foundation. In clinic and through her research, she is focused on hidradenitis suppurativa, including its effects on people and outcome measurement.

Talk Title: Outcomes in Research Panel
Date: Saturday, October 14
Time: 1:30 p.m. - 2:00 p.m.

Ginette Okoye, MD

Professor and Chair of Dermatology, Howard University College of Medicine

Dr. Ginette Okoye is Professor and Chair of Dermatology at Howard University College of Medicine. Her areas of clinical and research expertise are in health disparities in dermatology and hidradenitis suppurativa. Dr. Okoye left her native Trinidad & Tobago to attend Barry University, where she earned her BS degree. She then earned her Medical Degree from Columbia University's College of Physicians & Surgeons and completed her dermatology residency training at Yale University, where she also served as Chief Resident. She has been recognized by the American Academy of Dermatology with a Presidential Citation, a Volunteerism Award, a Patient Care Hero Award, and the 2023 Mentor of the Year Award.

Talk Title: Hamzavi Lecture: Health Care Disparities, Social Determinants of Health, and How These Impact HS Populations

Speaker Information

Christopher Sayed, MD

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

Dr. Christopher 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: Case-Based Combination Therapy Cases Panel
Date: Friday, October 13
Time: 5:15 p.m. - 5:40 p.m.

Conflict of Interest Disclosures

The Symposium on Hidradenitis Suppurativa Advances requires all Speakers and Committee Members to declare their conflicts of interest in relation to their presentation(s). The following is a list of disclosures received at the time of production.

Name	Role	Conflict(s)
Nathan Balukoff, MD, PhD	Oral Abstract Presenter	No conflicts to disclose.
Redina Bardhi, MD	Oral Abstract Presenter	No conflicts to disclose.
Carmelo Carmona-Rivera, PhD	Oral Abstract Presenter	No conflicts to disclose.
Sara Charmsaz, PhD	Oral Abstract Presenter	No conflicts to disclose.
Stella Chen, MD	Oral Abstract Presenter	No conflicts to disclose.
Colleen Cotton, MD, FAAD	Faculty	**Advisor:** Inner Archways, LLC, Janssen Biotech, LEO Pharma **Consultant:** Pierre-Fabre Pharmaceuticals **Research Grants:** AbbVie, Arcutis Biotherapeutics, Eli Lilly and Company, Regeneron, TARGET Pharma
Patricia Coutts, RN	Planning Committee	No conflicts to disclose.
Gordon Dale, MD, PhD	Oral Abstract Presenter	No conflicts to disclose.
Giovanni Damiani, MD	Oral Abstract Presenter	No conflicts to disclose.
Steven Daveluy, MD, FAAD	Planning Committee	**Speaker:** AbbVie
Peter Dimitrion, MS	Oral Abstract Presenter	No conflicts to disclose.
John Frew, MBBS (Hons) MMed MSc PhD FACD	Oral Abstract Presenter	**Consultant:** AbbVie, Boeringher Ingleheim, Janssen, Novartis, Pfizer, UCB
Amit Garg, MD	Faculty	**Advisor:** AbbVie, Aclaris Therapeutics, Anaptys Bio, Aristea Therapeutics, Boehringer Ingelheim, Bristol Myers Squibb, Incyte, InflaRx, Insmed, Janssen, Novartis, Pfizer, UCB, Union Therapeutics, Viela Biosciences
Ralph George, MD, FRCS	Planning Committee	**Speaker:** AbbVie, Novartis, UCB
Athena Gierbolini	Speaker Planning Committee	**Advisory Board:** Jenevive Health, LLC
Stephanie Goldberg, MD	Planning Committee	No conflicts to disclose.

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Name	Role	Conflict(s)
Noah Goldfarb, MD	Faculty Oral Abstract Presenter	**Advisory Board:** Novartis Consultant: Boehringer Ingelheim **Research Funding:** DeepX Health, Novartis **Primary Investigator:** AbbVie, Chemocentryx, Incyte, Pfizer
Courtney Haller, MD	Oral Abstract Presenter	No conflicts to disclose.
Tamia Harris-Tryon, MD, PhD	Faculty	No conflicts to disclose.
Jennifer Hsiao, MD	Faculty Planning Committee	**Consultant:** AbbVie, Boehringer Ingelheim, Novartis, UCB **Speaker:** AbbVie
Samantha Jacobson	Oral Abstract Presenter	No conflicts to disclose.
Richie Jeremian, PhD	Oral Abstract Presenter	No conflicts to disclose.
Joslyn Kirby, MD, MS	Faculty Oral Abstract Presenter Planning Committee	**Advisory Board:** AbbVie, Bayer, ChemoCentryx, Incyte, Janssen, Novartis, Moonlake and UCB **Consultant:** AbbVie, Bayer, ChemoCentryx, Incyte, Janssen, Novartis, Moonlake and UCB **Speaker:** AbbVie, Janssen and UCB Institutional Disease-Relevant Grant: Incyte
Rachel Krevh, BS	Oral Abstract Presenter	No conflicts to disclose.
Kaiyang Li, BSc	Oral Abstract Presenter	No conflicts to disclose.
Qing-Sheng Mi, MD, PhD	Oral Abstract Presenter	No conflicts to disclose.
Bria Midgette	Oral Abstract Presenter	No conflicts to disclose.
McKenzie Needham, MS	Oral Abstract Presenter	No conflicts to disclose.
Ginette Okoye, MD	Faculty	**Advisory Board:** Pfizer, UCB **Consultant:** Unilever

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Name	Role	Conflict(s)
Martin Okun, MD	Oral Abstract Presenter	No conflicts to disclose.
Lauren Orenstein, MD	Oral Abstract Presenter	Advisory Board: Novartis, UCB Consultant: UCB
Lynn Petukhova, PhD Vincent Piguet, MD, PhD, FRCP	Oral Abstract Presenter	No conflicts to disclose. Planning Committee Advisory Board: AbbVie, Celgene, Janssen, LEO Pharma, Novartis, Pfizer, Sanofi, UCB Principal Investigator: AbbVie, Novartis, Sanofi Residency/Fellowship Program Funding: AbbVie, Bausch Health, Celgene, Eli Lilly, Incyte, Janssen, LEO Pharma, NAOS, Novartis, Organon, Pfizer, Sandoz, Sanofi Speaker: Kyowa Kirin Co., Ltd, Union Therapeutics
Sneha Poondru, BA	Oral Abstract Presenter	No conflicts to disclose.
Martina Porter, MD	Planning Committee	Consultant: AbbVie, Alumis, Eli Lilly, Incyte, Janssen, Novartis, Pfizer, Trifecta Clinical, UCB Investigator: AbbVie, Anaptys Bio, Aristea, Bristol Meyers Squibb, Eli Lilly, Incyte, Janssen, Moonlake, Novartis, Pfizer, Regeneron, Sonoma Bio, UCB
Christopher Sayed, MD	Faculty	Oral Abstract Presenter Consultant: AbbVie, Alumis, Astrazeneca, Incyte, InflaRx, Novartis, Sonoma Biotherapeutics, UCB Investigator: AbbVie, Astrazeneca, Chemocentryx, Incyte, InflaRx, Novartis, UCB Speaker: AbbVie, Novartis

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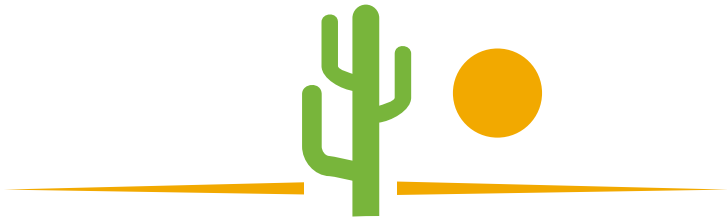
Name	Role	Conflict(s)
Sushma Shah, PhD	Oral Abstract Presenter	No conflicts to disclose.
Rayad Shams, BS	Oral Abstract Presenter	No conflicts to disclose.
Hannah Stirton, MD	Oral Abstract Presenter	No conflicts to disclose.
Quan Sun	Oral Abstract Presenter	No conflicts to disclose.
Richard Usatine, MD	Planning Committee	No conflicts to disclose.
Nicole Vecin	Oral Abstract Presenter	No conflicts to disclose.
Akhil Wadhera, MD	Oral Abstract Presenter	No conflicts to disclose.
Zachary Wendland, MD	Oral Abstract Presenter	No conflicts to disclose.
Linnea Westerkam	Oral Abstract Presenter	No conflicts to disclose.
Georgia Williams, BA, MA	Oral Abstract Presenter	No conflicts to disclose.
Se Mang Wong, MD, FRCPC	Planning Committee	**Advisory Board/Consultant:** Abbvie, Amgen, Bausch Health, Boehringer Ingelheim, Bristol Meyers Squibb, Eli-Lilly, Galderma, Janssen, Johnson & Johnson, Leo Pharma, Novartis, Pfizer, Sanofi, Sun Pharma, UCB Pharma **Research Grant:** Novartis **Speaker:** Abbvie, Eli-Lilly, Leo Pharma, Novartis, Pfizer, UCB Pharma
Amina Ziad	Oral Abstract Presenter	No conflicts to disclose.



Oral Abstracts Schedule

Time	Abstract Title	Presenter Name
Friday, October 13		
1:50 p.m. - 2:00 p.m.	Genetic Correlation Analysis of Hidradenitis Suppurativa Comorbidity	Quan Sun
2:00 p.m. - 2:10 p.m.	An Ancestrally Diverse Meta-Analysis of Nine Hidradenitis Suppurativa Cohorts Identifies Four Risk Loci.	Lynn Petukhova, PhD
2:10 p.m. - 2:20 p.m.	Mass Cytometry Profiling Uncovers Cellular Biomarkers in the Blood and Skin Lesions of Hidradenitis Suppurativa	Qing-Sheng Mi, MD, PhD
2:20 p.m. - 2:30 p.m.	STING-activated monocytes and mo-macs promote recruitment of neutrophils and B cells to HS lesions.	Peter Dimitrion, MS
2:30 p.m. - 2:40 p.m.	Assessing the Impact of Outpatient Dermatology Care on Hospitalizations for Hidradenitis Suppurativa	Redina Bardhi, MD
2:40 p.m. - 2:50 p.m.	Inborn Errors of Immunity Help to Resolve the Immunological Landscape of Hidradenitis Suppurativa	Lynn Petukhova, PhD
2:50 p.m. - 3:00 p.m.	Exploring the genomic landscape of hidradenitis suppurativa: A comprehensive genome-wide association study from the VA's Million Veteran Program	Zachary Wendland, MD
3:00 p.m. - 3:10 p.m.	Implication of SOX9 and KLF5 in Hs Pathogenesis Using a Genome-Wide Association Study	Christopher Sayed, MD
3:40 p.m. - 3:50 p.m.	Hidradenitis Suppurativa is associated with DNA dysmethylation caused by Circadian Rhythm disruption	Sushma Shah, PhD
3:50 p.m. - 4:00 p.m.	Transcriptional Aging Signatures Are Associated with Clinical Features of Hidradenitis Suppurativa	Richie Jeremian, PhD
4:00 p.m. - 4:10 p.m.	Povorcitinib Impact on DLQI in Patients with Hidradenitis Suppurativa: Placebo-Controlled Phase 2 Study Results	Martin Okun, MD
4:10 p.m. - 4:20 p.m.	Improving Care of Hidradenitis Suppurativa Patients in an Emergency Setting: A Quality Improvement Project	Georgia Williams, BA, MA

Oral Abstracts Schedule

Time	Abstract Title	Presenter Name
Friday, October 13		
4:20 p.m. - 4:30 p.m.	HiSQoL Changes Among HiSCR Responders and Nonresponders in a Phase 2 Study of Povorcitinib	Joslyn Kirby, MD, MS, MEd
4:30 p.m. - 4:40 p.m.	Examining Persistence of Pain Character in Patients with Hidradenitis Suppurativa	Samantha Jacobson
4:40 p.m. - 4:50 p.m.	Hs Uncovered: Results from a Global Survey Revealing Patient Perspective in Hidradenitis Suppurativa	Joslyn Kirby, MD, MS, MEd

Time	Abstract Title	Presenter Name
Saturday, October 14		
9:05 a.m. - 9:15 a.m.	Responsiveness of the Hidradenitis Suppurativa Activity and Area Index Revised (HASI-R) in United States Registries	Noah Goldfarb, MD
9:15 a.m. - 9:25 a.m.	Survey-Based Study Evaluating Breastfeeding Practices in Patients with Hidradenitis Suppurativa	Linnea Westerkam
9:25 a.m. - 9:35 a.m.	Complication Rates in HS Surgery among Patients with Concurrent Smoking, Obesity, or Diabetes Mellitus	Rayad Shams, BS
9:35 a.m. - 9:45 a.m.	Predictors of Surgical Outcomes in Hidradenitis Suppurativa: A Scoping Review	Kaiyang Li, BSc
9:45 a.m. - 9:55 a.m.	NETs Activate Notch- g--Secretase Signaling in Macrophages and Fibroblasts and Promote Pro-Fibrotic Responses in Hidradenitis Suppurativa	Carmelo Carmona-Rivera, PhD
9:55 a.m. - 10:05 a.m.	Inflammatory Modulation Correlates with Clinical Scarless Tunnel Resolution after Novel Anti-Biofilm Therapy for Hidradenitis Suppurativa Tunnels	Nathan Balukoff, MD, PhD
11:05 a.m. - 11:15 a.m.	Elucidating the Pro-Inflammatory Profile of Hidradenitis Suppurativa from Defined Histopathology	Nicole Vecin
11:15 a.m. - 11:25 a.m.	Laser Hair Reduction is an Effective Treatment Option for Patients Suffering from Hidradenitis Suppurativa.	Akhil Wadhera, MD

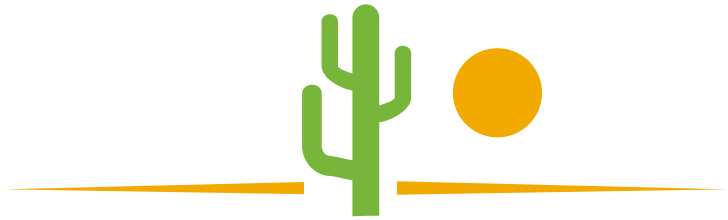
Oral Abstracts Schedule

Time	Abstract Title	Presenter Name
Saturday, October 14		
11:25 a.m. - 11:35 a.m.	Dysregulation of Long Non-Coding Rnas (lncRNA) May Be the Future Biomarker to Predict and Monitor Patient Journey in Hidradenitis Suppurativa	Giovanni Damiani, MD
11:35 a.m. - 11:45 a.m.	Infectious Disease Screening Prior to Systemic Immunomodulatory Therapy in Hidradenitis Suppurativa: Consensus Guidelines from the Asia-Pacific Hidradenitis Suppurativa Foundation	John Frew, MBBS (Hons) MMed MSc PhD FACD
2:05 p.m. - 2:15 p.m.	Development of a Novel Regulatory T Cell-Based Therapy for Patients with Hidradenitis Suppurativa	Sara Charmsaz, PhD
2:15 p.m. - 2:25 p.m.	B-Cell and Granulocyte Associated Chemokines Are Associated with Clinical Response to the Janus Kinase Inhibitor Upadacitinib in Hidradenitis Suppurativa	John Frew, MBBS (Hons) MMed MSc PhD FACD
2:25 p.m. - 2:35 p.m.	Identification of Distinct Inflammatory Proteomes between African American and White Patients with Hidradenitis Suppurativa	Rachel Krevh, BS
2:35 p.m. - 2:45 p.m.	Antigen-Dependent in Situ Differentiation and Immunomodulatory Potential of Infiltrating B Cells in Hidradenitis Suppurativa	Gordon Dale, MD, PhD
2:45 p.m. - 2:55 p.m.	Preliminary Findings from a Prospective Therapeutic Drug Monitoring Study for Hidradenitis Suppurativa	Stella Chen, MD
2:55 p.m. - 3:05 p.m.	Baseline Patient Characteristics Associated with Achieving HiSCR with Povorcitinib: Phase 2 Secondary Analysis	Joslyn Kirby, MD, MS, MEd
3:55 p.m. - 4:05 p.m.	Inpatient Management of Hidradenitis Suppurativa: A Delphi Consensus Study	McKenzie Needham, MS
4:05 p.m. - 4:15 p.m.	Bimekizumab in Moderate to Severe Hidradenitis Suppurativa: 48-Week HiSQOL Data from BE HEARD I & II	Joslyn Kirby, MD, MS, MEd
4:15 p.m. - 4:25 p.m.	A Proof-Of -Concept Open-Label Clinical Trial of Spleen Tyrosine Kinase Antagonism Using Fostamatinib in Moderate-To-Severe Hidradenitis Suppurativa	John Frew, MBBS (Hons) MMed MSc PhD FACD

Oral Abstracts Schedule

Time	Abstract Title	Presenter Name
Saturday, October 14		
4:25 p.m. - 4:35 p.m.	Fostamatinib Significantly Reduces Serum IL-17A, IL-1A, IL-6 and IL-8 in Hidradenitis Suppurativa: Proteomic Analysis from a Phase 2 Clinical Trial.	John Frew, MBBS (Hons) MMed MSc PhD FACD
4:35 p.m. - 4:45 p.m.	Bimekizumab Impact on Pain in Moderate to Severe Hidradenitis Suppurativa: Week 16 Results from BE HEARD I & II	Lauren Orenstein, MD

Time	Abstract Title	Presenter Name
Sunday, October 15		
9:35 a.m. - 9:45 a.m	Association between Precocious Puberty and Hidradenitis Suppurativa in Pediatric Patients	Bria Midgette
9:45 a.m. - 9:55 a.m.	Evaluating Patients with Hidradenitis Suppurativa for Disordered Eating	Amina Ziad
9:55 a.m. - 10:05 a.m.	Therapeutic Drug Monitoring in Hidradenitis Suppurativa Patients with Suboptimal Treatment Response to Adalimumab	Hannah Stirton, MD
10:05 a.m. - 10:15 a.m.	Safety and Efficacy of Biologic Treatments in Patients with down Syndrome and Hidradenitis Suppurativa	Linnea Westerkam
10:15 a.m. - 10:25 a.m.	Pediatric Satisfaction after Deroofing Surgery for Hidradenitis Suppurativa	Courtney Haller, MD
10:25 a.m. - 10:35 a.m.	Knowledge of Hidradenitis Suppurativa amongst Emergency Medicine	Sneha Poondru, BA



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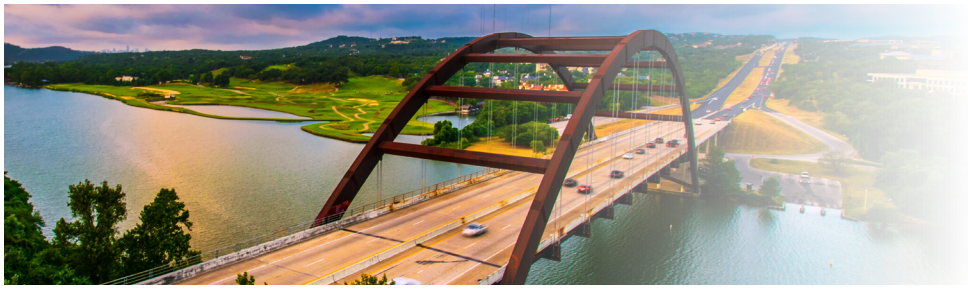

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Oral Abstracts

SHSA 2023

Friday, October 13 · 1:50 p.m. - 2:00 p.m.

3000162 - Genetic Correlation Analysis of Hidradenitis Suppurativa Comorbidity

Quan Sun[1], K Alaine Broadaway[2], Sharon Edmiston[3], Kristen Fajgenbaum[3], Tyne W Miller-Fleming[4], Linnea Westerkam[5], Maria Melendez-Gonzalez[3], Helen Bui[6], Franklin Blum[7], Brandt Levitt[8], Lan Lin[3], Honglin Hao[3], Kathleen M Harris[9], Zhi Liu[3], Nancy Thomas[3], Nancy J Cox[4], Christopher Sayed[10], Karen Mohlke[2], Yun Li[11]

[1]University of North Carolina at Chapel Hill, [2]UNC Department of Genetics, [3]UNC Department of Dermatology, [4]Vanderbilt Medical Center Division of Genetic Medicine, [5]University of North Carolina at Chapel Hill/School of Medicine, [6]UNC Department of Internal Medicine, [7]UNC School of Medicine, [8]UNC Chapel Hill Population Center, [9]UNC Chapel Hill Population Health Center and Department of Sociology, [10]UNC Dermatology, [11]UNC Departments of Genetics and Biostatistics

Background: The comorbidity burden associated with hidradenitis suppurativa (HS) has been extensively described in recent medical literature. People with HS have a higher risk than the general population of developing metabolic syndrome, diabetes, anxiety, depression, and inflammatory conditions such as inflammatory bowel disease, inflammatory arthritis, psoriasis. The contribution of genetic susceptibility vs confounding environmental factors is unclear, but recent large-scale genetics studies provide an opportunity to look for shared genetic components of inflammatory diseases and HS. We performed genetic correlation analysis, which provides an estimated overlap of associations for a pair of complex traits with existing genome-wide summary statistics.

Objective: To investigate evidence of shared genetic components between HS and auto-immune and inflammatory diseases.

Method: We performed genetic correlation analysis with LD score regression using GWAS summary statistics from HS meta-analysis and external comorbidity diseases, including celiac disease, inflammatory bowel disease, polycystic ovary syndrome, psoriasis, rheumatoid arthritis, and type 2 diabetes. We also added schizophrenia GWAS as a negative control. For a sensitivity analysis, we replaced the HS meta-analysis GWAS from all ancestries with European-only GWAS and repeated the analysis.

Results: We found nominally significant ($p < 0.05$) genetic correlation between HS and IBD (rg=0.39, p=0.04), psoriasis (rg=0.49, p=0.03), and T2D (rg=0.18, p=0.04). These significant association were also supported by our sensitivity analysis, with rg=0.47, 0.35, 0.12 and p=0.03, 0.03, 0.05 for IBD, psoriasis and T2D, respectively. We note that these putative associations were not significant at a stringent Bonferroni-corrected threshold ($p < 0.05/7$).

Discussion: These results suggest that IBD, psoriasis and T2D may have correlated genetic segments with HS. The analyses should be repeated when better-powered HS GWAS becomes available.

Friday, October 13 · 2:00 p.m. - 2:10 p.m.

3000131 - An Ancestrally Diverse Meta-Analysis of Nine Hidradenitis Suppurativa Cohorts Identifies Four Risk Loci.

Atlas Khan[1], Errol P Prens[2], Alice Braun[3], Lee Wheless[4], Adriana M Hung[4], Lam Tsoi[5], Johann E Gudjonsson[5], Theodore G Drivas[6], Marylyn D Ritchie[6], Amir Hossein Saeidian[7], Hákon Hákonarson[7], Nick Dand[8], Jonathan Barker[8], Michael Simpson[8], Jake Saklatvala[8], Brian Kirby[9], Maris Teder-Laving[10], Külli Kingo[10], M. Geoffrey Hayes[11], John Connolly[7], Frank Mentch[7], Patrick Sleiman[7], George Hripcsak[1], Krzysztof Kiryluk[1], Chunhua Weng[1], . .[12], Stephan Ripke[13], Kelsey R. van Straalen[2], Lynn Petukhova[1]

[1]Columbia University, [2]Erasmus University, [3]Charité University, [4]Tennessee Valley Healthcare System, Nashville VA and Vanderbilt University Medical Center, [5]University of Michigan-Ann Arbor, [6]University of Pennsylvania, [7]Children's Hospital of Philadelphia, [8]King's College London, [9]University College Dublin, [10]University of Tartu, [11]Northwestern University, [12]The Hidradenitis Suppurativa Genetics Consortium, [13]Charité University and The Broad Institute

Background: Genome-wide association studies (GWAS) define the polygenic architecture of disease and generate knowledge about pathways, cell types, therapeutic targets, and disease heterogeneity. Diseases that have been successfully investigated with GWAS have identified hundreds of risk loci by using cohorts with tens of thousands of research participants in an iterative process of combining GWAS with meta-analyses.

Objective: The Hidradenitis Suppurativa (HS) Genetics Consortium has created a platform to facilitate global collaborations for conducting and translating HS GWAS. We have conducted GWAS or obtained summary statistics from nine HS cohorts which we will combine with a GWAS-meta-analysis.

Method: HSGC members used standardized protocols for data cleaning, quality control, and analysis. Briefly, association tests were performed using REGENIE or SAIGE software and performed separately for each major ancestral population. Summary statistics were submitted to the HSGC and combined using an inverse variance–weighted fixed effects meta-analysis.

Results: Seven HS cohorts contained research participants from two major ancestry groups (EUR and AFR), while two contained only EUR participants. Thus, sixteen HS GWAS were conducted and combined, representing 5,196 cases and 1,105,532 controls. Of our HS cases, 2,113 were genetically assigned to African ancestry. Statistically significant associations were identified at four loci ($p<5x10-8$): rs3104414 at chromosome 6p21.32 ($p=3x10-10$) was previously associated with asthma; rs2134757 at chromosome 1q32.1 ($p=4x10-8$) falls within an intron of INAVA (Innate Immunity Activator), a genetic cause of inflammatory bowel disease (OMIM 618077); rs9543373 at chromosome13q22.1 ($p=1x10-9$) and rs11871027 at chromosome 17q24.3 ($p=2x10-9$) are both intergenic.

Discussion: We have identified four statistically significant associations with HS by performing a meta-analysis GWAS using ancestrally diverse cohorts. Experimental validation is underway, which will allow us to rigorously define genetic mechanisms driving these associations. We are also pursuing computational methods to identify opportunities for leveraging the pleiotropy suggested by previous associations at these loci with other inflammatory diseases.

Friday, October 13 · 2:10 p.m. - 2:20 p.m.

3000124 - Mass Cytometry Profiling Uncovers Cellular Biomarkers in the Blood and Skin Lesions of Hidradenitis Suppurativa

Peter Dimitrion[1], Albert Young[1], Aakash Hans[1], Congcong Yin[1], Rachel Krevh[1], Bobby Zuniga[1], Indra Adrianto[2], Iltefat Hamzavi[1], Li Zhou[1], Qing-Sheng Mi[3]

[1]Henry Ford Health, Department of Dermatology, [2]Henry Ford Health, Center for Bioninformatics, [3]Henry Ford Health

Background: Hidradenitis suppurativa (HS) disproportionately affects African Americans and Women. Whether different demographic subgroups of patients with HS have distinct immune dysregulation is unknown. Further, predictive biomarkers of treatment response are urgently needed.

Objective: To determine whether patients with HS exhibit demographic-specific immune dysregulation and identify potential prognostic biomarkers of anti-TNF response.

Method: We performed cytometry by time of flight (CyTOF), using 33 immune markers, to measure 37 immune cell populations from fresh whole-blood of 74 patients with HS. Our cohort was 81% female; 50% were Black, and 41% were white. Thirty-one patients had tried anti-TNF therapy, and 13/23 (57%) and 8/22 (36%) had failed adalimumab and infliximab, respectively. We analyzed the data with respect to sex, race, Hurley stage, and treatment response.

Results: Compared to males, females had more total B cells, including naive B cells, and memory B cells, and naive CD8 αβ T cells ($p<0.05$). Compared to non-Blacks, Blacks had more plasmablasts, non-classical monocytes, dendritic cells, but fewer basophils and Th1 cells ($p<0.05$). Patients with Hurley stage 3 disease had more Th17 and Treg cells compared to stage 2 ($p<0.05$). Moreover, those who failed adalimumab had a higher Th17:Treg ratio ($p=0.02$), suggesting that Th17:Treg axis dysregulation may be related to anti-TNFresistance. Patients taking infliximab had fewer NK cells and CD8 αβ T cells and more plasmablasts and intermediate monocytes. However, those who failed infliximab had more intermediate monocytes and fewer αβT cells, especially central memory CD8 cells and central memory CD4 cells.

Discussion: Overall, our data highlights discrete immune responses in demographic subgroups of patients with HS, and patients with different disease severity. We further uncovers potential biomarkers for anti-TNF therapy, which may help illuminate pathogenesis and guide precision medicine.

Friday, October 13 · 2:20 p.m. - 2:30 p.m.

3000068 – STING-activated monocytes and mo-macs promote recruitment of neutrophils and B cells to HS lesions.

Peter Dimitrion[1], Indra Adrianto[2], Ian Loveless[3], Congcong Yin[4], Rachel Krevh[4], Angela Miller[1], Richard Huggins[1], Jesse Veenstra[1], Aakash Hans[1], Steven Daveluy[5], Wilson Liao[6], Henry Lim[1], David Ozog[1], Iltefat Hamzavi[1], Li Zhou[1], Qing-Sheng Mi[1]

[1]Henry Ford Health, Department of Dermatology, [2]Henry Ford Health, Center for Bioinformatics, [3]Michigan State University, [4]Immunology Research Program, Henry Ford Cancer Institute, Henry Ford Health, Detroit, Michigan, USA., [5]Wayne State University School of Medicine, Department of Dermatology, [6]University of California San Francisco, Department of Dermatology

Background: Our lab has shown that immunomes of patients with hidradenitis suppurativa (HS) are dysregulated compared to healthy controls (HCs). Our previous investigations did not analyze gene expression changes, which may uncover cell-type specific dysregulation in infiltrating immune cells.

Objective: Identify cell-specific transcriptomic perturbations in patients with HS to uncover mechanisms of immune cell activation.

Method: We employed cellular indexing of transcriptomes and epitopes by sequencing (CITEseq) to analyze peripheral blood mononuclear cells (PBMCs) from 4 HS and 2 HC, spatial transcriptomics on 4 HS lesions, the HS-Omics database, and functional flow cytometry assays.

Results: CITEseq found circulating myeloid cells in patients with HS had increased expression of genes involved in activation and tissue migration. Sub cluster analysis of myeloid cells identified a population of classical monocytes (C.Mos) that expressed Sod2 found in patients with HS, but not HC PBMCs. SOD2+ C.Mos expressed Ccl3, Ccl4, Cxcl2, and Cxcl8, which are neutrophil and B cell recruiting chemokines. In HSOmicsDB, these genes were more highly expressed in lesional HS skin compared to perilesional and nonlesional HS skin. Moreover, Mos and Mo-derived macrophages expressed the highest levels of these genes in HS lesions. Upstream regulator analysis showed that SOD2+ C.Mo genes lie downstream of nucleic acid sensing pathways, like stimulator of interferon genes (STING). Indeed, STING activation of human monocytes increased their expression of SOD2. Using spatial transcriptomics, we found the SOD2+ C.Mo signature localized to active regions of

inflammation, specifically dermal tunnels. Further analysis of CITEseq data found C.mos in HS have increased expression of L1-family retrotransposons, which are potent activators of STING signaling.

Discussion: Activation of SOD2+ C.Mos is driven in-part by STING signaling. SOD2+ C.Mos and Mo-Macs localized to active regions of inflammation where they express neutrophil an B cell attracting chemokines. C.Mo STING activation may be driven by overexpression of L1 retrotransposons.

Friday, October 13 · 2:30 p.m. – 2:40 p.m.

3000165 – Assessing the Impact of Outpatient Dermatology Care on Hospitalizations for Hidradenitis Suppurativa

Redina Bardhi[1], Jalal Maghfour[1], Vivian Liu[2], Brittani Jones[3], Richard Huggins[1], Iltefat Hamzavi[1]

[1]Department of Dermatology, Henry Ford Hospital, Detroit, MI, USA, [2]Department of Internal Medicine, University of Central Florida, Gainesville, Florida, USA., [3]Wayne State University School of Medicine

Background: Hidradenitis suppurativa (HS) is a challenging disease characterized by acute painful flares. Emergency department (ED) visits and inpatient admissions are common among HS patients.

Objective: To assess the impact of outpatient dermatology care on hospitalizations for HS.

Method: Using ICD-9/10 codes (705.83 and L73.2), we extracted medical records of adult HS patients who visited the emergency department and/or were admitted to an inpatient service within the Henry Ford Health System (HFHS) between 2010 to 2020.

Results: Of 100 adult patients with HS, 17 did not have an established dermatologist within the HFHS system at the time of their ED visit but established outpatient dermatology care following their first discharge (group 1). 13 did not have an established dermatologist at any point during the study period (group 2), and 70 had already established care with a dermatologist prior to their first visit to the ED (group 3).

Compared to 13/13 (100%) from group 2, only 25 (28.7%) of the 87 HS patients with an established HFHS dermatologist (group 1 and group 3) were admitted (28.7 % vs 100%, p <0.001).

Having outpatient dermatology care at the time of ED presentation also influenced the likelihood of being readmitted. Of the 25 HS patients with an established dermatologist who were initially admitted (group 3 and group 1), 10 (11.5%) were readmitted. In comparison, of the 13 patients who were admitted with no established dermatology care (group 2), five (38.5%) were readmitted; this difference was significant (11.5% vs 38.5%, p value=0.0108).

Discussion: In this retrospective cohort study, we sought to characterize the patterns of hospitalizations among HS patients. Our results suggest that increased access to outpatient dermatology settings significantly reduced the likelihood of being admitted. Furthermore, having an outpatient dermatologist significantly lowered the risk of being readmitted.

Limitations: Single center and retrospective

Friday, October 13 · 2:40 p.m. – 2:50 p.m.

3000135 - Inborn Errors of Immunity Help to Resolve the Immunological Landscape of Hidradenitis Suppurativa

Mariam M. Youssef[1], Annelise Colvin[1], Heeju Noh[1], Patrick R. Shea[1], Evan Baugh[1], Julia Wright[1], Ghislaine Jumonville[1], Kayla Babbush[2], Tyler M. Adriano[2], Gabrielle Benesh[2], McCall E. Torpey[2], Avigdor Nosrati[2], Andrew DeWan[3], Suzanne Leal[1], Steven Cohen[2], Joshua D. Milner[1], Lynn Petukhova[4]

[1]Columbia University Medical Center, [2]Montefiore Hospital, [3]Yale University, [4]Columbia University

Background: Hidradenitis suppurativa (HS) has many unmet needs and a poorly resolved genetic architecture. Single-gene causes of disease help to identify key regulators of disease pathogenesis and targets for therapeutic interventions. Methods for gene discovery demand high thresholds for statistical testing and constrain the phenotypic spectrum of human disease. However, these limitations can be leveraged with diagnostic analyses, which create opportunities for resolving the monogenic architecture of diseases that have been underrecognized in clinical practice, such as HS.

Objective: Inborn errors of immunity (IEI) have implicated 450 genes in clinical manifestations of immune dysregulation and capture the full spectrum of immune system contributions to tissue homeostasis and pathogen response. We hypothesized that undiagnosed IEI exist in HS cohorts and would help to prioritize immune pathways for targeted intervention in HS.

Method: We conducted a diagnostic analysis of 450 IEI in a diverse cohort of 270 HS research participants, defining qualifying variants (QV) as those with a max frequency <.001 and altering protein sequence and/or expression. We used network methods and graph theory to document molecular relationships among implicated IEI, conducted burden testing to identify genes with a statistically significant enrichment of QV, and performed experiments and literature searches to establish phenotypic coherency.

Results: Our diagnostic analysis identified QV in 84 genes that map onto a limited number of clinically relevant pathways, including complement-, JAK/Stat-, and mTOR- signaling. Burden testing and experimental validation identified one gene (STAT1) with a statistically significant enrichment of rare gain-of-function missense variants; and five additional genes with enrichment that reached nominal significance (p<.05). We established phenotypic coherency between HS and implicated IEI, including molecular, cellular, and/or clinical phenotypes.

Discussion: Our work establishes a framework for prioritizing immune pathways for therapeutic targeting in HS and for resolving etiological heterogeneity found among patients, inviting a precision medicine approach to HS management.

Friday, October 13 · 2:50 p.m. - 3:00 p.m.

3000147 - Exploring the genomic landscape of hidradenitis suppurativa: A comprehensive genome-wide association study from the VA's Million Veteran Program

Zachary Wendland[1], Craig Teerlink[2], Catherine Tcheandjieu[3], Scott Damrauer[2], Philip Tsao[4], Kyong-Mi Chang[2], Julie Lynch[5], Noah Goldfarb[1]

[1]University of Minnesota / VAMC, [2]University of Pennsylvania Perelman School of Medicine/ Corporal Michael Crescenz VA Medical Center, [3]VA Palo Alto Health Care System, [4]VA Palo Alto Health Care System / Stanford University School of Medicine, [5]VA Salt Lake City Healthcare System

Background: Data from family and twin studies suggests that hidradenitis suppurativa (HS) has a hereditary component with autosomal dominant inheritance patterns in some families. 30-40% of HS patients report at least one first degree relative with HS, and twin studies have suggested a familial risk of up to 73 times the background population. While ~5-6% of HS patients have been found to have causative loss-of-function mutations in the gamma-secretase complex, genome-wide association studies, looking for single-nucleotide polymorphisms (SNPs) , have thus far not found any results. We performed a genome-wide association study (GWAS) of patients in the VA's Million Veteran Program (MVP) with a diagnosis of HS.

Objective: To gain insight into a potential underlying genetic driver(s) of HS pathogenesis.

Method: We performed a GWAS study of patients with a diagnosis of HS defined as at least one instance of ICD9 705.3 or ICD10 L73.2 from participants in the VA's Million Veteran Program (MVP). MVP is a national program evaluating how military experience, exposures, lifestyle, and genetics influences Veterans' wellness and health. MVP currently has full genome sequencing data on more than 950,000 Veterans. Conventional genome-wide significance threshold 5×10^{-8} was used to declare study-wide significance. Only SNPs with minor allele frequency > 1% were included in the analysis (INFO > 0.30).

Results: In total, 597,819 participants were analyzed and 4,959 cases with HS were identified (African ancestry (AA): 1,931; European ancestry (EA); 7,982; Hispanic ancestry (HA): 435). When evaluating all Veterans from various ancestral backgrounds in a meta-analysis, SNP in two genes were associated with HS; GL000251 on chromosome 6 (32 NPS) and CASC17 on chromosome 17 (12 SNPs).

Discussion: GL000251 is an alternate major histocompatibility complex (MHC) representing A1-B8-DR3 haplotype. CASC17 is a cancer susceptibility gene associated with Camplomelic Dysplasia and Autosomal Recessive 1 Robinow Syndrome with unclear relationship with HS.

Friday, October 13 · 3:00 p.m. - 3:10 p.m.

3000105 - Implication of SOX9 and KLF5 in Hs Pathogenesis Using a Genome-Wide Association Study

Quan Sun[1], K Alaine Broadaway[1], Sharon Edmiston[2], Kristen Fajgenbaum[2], Tyne W Miller-Fleming[3], Linnea Westerkam[4], Maria Melendez-Gonzalez[2], Helen Bui[5], Franklin Blum[6], Brandt Levitt[7], Lan Lin[2], Kathleen M Harris[8], Honglin Hao[2], Zhi Liu[2], Nancy Thomas[2], Nancy J Cox[3], Yun Li[9], Karen Mohlke[1], Christopher Sayed[10]

[1]UNC Department of Genetics, [2]UNC Department of Dermatology, [3]Vanderbilt Medical Center Division of Genetic Medicine, [4]University of North Carolina School of Medicine, [5]UNC Department of Internal Medicine, [6]UNC School of Medicine, [7]UNC Chapel Hill Population Center, [8]UNC Chapel Hill Population Health Center and Department of Sociology, [9]UNC Departments of Genetics and Biostatistics, [10]UNC Dermatology

Background: Hidradenitis suppurativa (HS) is a common, chronic inflammatory skin disease that is highly heritable. While variants related to gamma-secretase complex proteins have been reported in <5% of HS patients, risk loci relevant to most patients with HS have not previously been reported.

Objective: Our objective was to identify genetic variants associated with HS using a genome-wide association study.

Method: We recruited 753 HS patients at the University of North Carolina (UNC) Department of Dermatology and performed GWAS for 720 of them with controls from the Add Health study, and then meta-analyzed with three large biobanks: UK Biobank (247 cases), FinnGen (673 cases), and BioVU biobank (290 cases).

Results: In meta-analysis we identified and replicated two HS-associated loci, with lead variants rs10512572 (p=2.3x10-11) and rs17090189 (p=2.1x10-8) near the SOX9 and KLF5 genes, respectively. Variants at these loci are located in enhancer regulatory elements detected in skin tissue.

Discussion: Common variants associated with HS located near the SOX9 and KLF5 genes affect risk of HS. These genes are associated with Th17-mediated inflammation, chronic non-healing wounds, epidermal and follicular stem cell differentiation, and follicular maintenance. These or other nearby genes may contribute to genetic risk of disease and the development of clinical features such as cysts, comedones, and inflammatory tunnels that are unique to HS. New insights into disease pathogenesis related to these genes may help predict disease progression and novel treatment approaches in the future.

Friday, October 13 · 3:40 p.m. - 3:50 p.m.

3000136 – Hidradenitis Suppurativa is associated with DNA dysmethylation caused by Circadian Rhythm disruption

Sushma Shah[1], Uppala Ratnamala[2], Rakesh Rawal[3], Gregor Jemec[4], Giovanni Damiani[5], Uppala Radhakrishna[6]

[1]B.J. Medical College, Ahmedabad, India, [2]Department of Life Sciences, School of Sciences, Gujarat University, Ahmedabad-380009, India, [3]Department of Biomedical Sciences, School of Sciences, Gujarat University, Ahmedabad-380009, India, [4]Department of Dermatology, Zealand University Hospital, Roskilde, Denmark, [5]Unit of Clinical Dermatology, Università Vita-Salute San Raffaele, Milan, Italy., [6]Department of Anesthesiology and Perioperative Medicine, Pittsburgh, PA 15261

Background: Hidradenitis suppurativa (HS) is a chronic inflammatory skin condition that affects hair follicles in areas with apocrine sweat glands, such as the underarms, groin, and buttocks. The exact cause of HS is not fully understood, but researchers have found that it is associated with disruptions to the circadian rhythm (CR).

Objective: Our goal was to identify epigenetically dysregulated Circadian rhythm in HS development and to find possible molecular pathways that involve clock genes and their potential role as HS biomarkers

Method: We analyzed blood DNA from 24 HS cases and 24 healthy controls using the Illumina HumanMethylation450 BeadChip array coupled with detailed bioinformatics and statistical methods.

Results: A total of 339 differentially methylated CpG sites were identified, encompassing 339 circadian clock genes including 272 hypomethylated, and 67 hypermethylated CpGs. SIGLEC5, RORA, CLUAP1, POLR1E, and BIRC3 are the top five genes associated with HS, which disrupt sleep-wake rhythms and affect mental health. Gene Ontology analysis showed that 20 canonical signaling pathways related to HS with HS gene enrichment at probability values ≤0.01 were: CR, Wnt signaling pathway, Pathways in cancer, insulin secretion, and Hedgehog signaling pathway.

Discussion: The present study postulated relationships between epigenetic regulation and CR and highlight new pieces of evidence that may help improve HS therapeutical management refraining from its progression. Furthermore, interventions targeting CR may help possible therapeutic advances in chrono-medicine that will become increasingly important in the future.

Friday, October 13 · 3:50 p.m. – 4:00 p.m.

3000060 – Transcriptional Aging Signatures Are Associated with Clinical Features of Hidradenitis Suppurativa

Richie Jeremian[1], Kaiyang Li[1], David Croitoru[2], Philippe Lefrançois[3], Jorge Georgakopoulos[2], Jensen Yeung[2], Ivan Litvinov[3], Raed Alhusayen[2], Vincent Piguet[2]

[1]McGill University Faculty of Medicine, [2]University of Toronto Division of Dermatology, [3]McGill University Division of Dermatology

Background: We investigated the role of molecular and biological aging in the pathophysiology of hidradenitis suppurativa (HS). Transcriptomic age dysregulation (deviation of estimated transcriptome-derived age from chronological age) is a marker of accelerated biological aging and has been associated with a variety of disorders including cancer, major depression, and cardiovascular disease.

Objective: To investigate the role of transcriptomic aging signatures in the pathophysiology of HS.

Method: In this cross-sectional study, we leveraged five RNA-seq datasets of lesional (n=50) and non-lesional (n=49) skin from HS patients and age-matched healthy controls (n=83). Using the RNAAgeCalc R package, we calculated transcriptomic age for seven algorithms (DESeq2, Pearson, Dev, deMagalhaes, GenAge, GTExAge and Peters), each trained on distinct RNA-seq databases of healthy human skin. Correlation of transcriptomic with chronological age was conducted using Pearson's correlation. Age dysregulation was assessed between lesional and non-lesional groups, smoking status, Hurley staging, sex, and pharmacotherapy using Welch's T-test and ANOVA.

Results: We observed significant correlation between chronological and transcriptomic age in lesional (R=0.33~0.51, p=1.7x10-4~1.8x10-2), non-lesional (R=0.64~0.67, p=1.3x10-7~6.8x10-7), and individual healthy control groups (R=0.35~0.77, p=1.9x10-7~0.031). Compared to healthy control, transcriptomic age was accelerated in lesional (+5.5 years, p=1.1x10-4) and non-lesional (+3.5~4.0 years, p=6.7x10-3~0.021) skin. Among HS patients, transcriptomic age was accelerated in former versus current smokers (+4.59~6.14 years, p=6.6x10-4~5.4x10-3) and non-smokers (+4.4 years, p=0.043), in Hurley III versus II (+2.4~6.0 years, p=1.6~1.9x10-3), and in male versus female patients (+10.3~14.9 years, p=8.0x10-6~0.037). Adalimumab treatment was associated with acceleration in lesional (+5.2 years, p=0.016) and deceleration in non-lesional (-5.5 years, p=0.024) skin.

Discussion: We report transcriptomic age dysregulation in two adult cohorts of HS, bridging clinical dimensions of disease burden and altered gene expression. Our findings highlight transcriptional signatures as viable biomarkers to investigate the molecular mechanisms underlying disease and support a precision medicine approach in the treatment and prognostication of HS in the clinical setting.

Friday, October 13 · 4:00 p.m. – 4:10 p.m.

3000159 - Povorcitinib Impact on DLQI in Patients with Hidradenitis Suppurativa: Placebo-Controlled Phase 2 Study Results

Martin Okun[1], Martina Porter[2], Afsaneh Alavi[3], Falk Bechara[4], Christos Zouboulis[5], Kurt Brown[6], Leandro Santos[6], Tara Jackson[6], Zhenyi Xue[6], Alexandra Kimball[2], Joslyn Kirby[7]

[1]Fort HealthCare, [2]Harvard Medical School and Beth Israel Deaconess Medical Center, Boston, MA, USA, [3]Mayo Clinic, Rochester, MN, USA, [4]Ruhr-University Bochum, Bochum, Germany, [5]Staedtisches Klinikum Dessau, Brandenburg Medical School Theodor Fontane and Faculty of Health Sciences Brandenburg, Dessau, Germany, [6]Incyte Corporation, Wilmington, DE, USA, [7]Penn State Health Milton S. Hershey Medical Center, Hershey, PA, USA

Background: Povorcitinib is an oral, small-molecule, selective Janus kinase (JAK)1 inhibitor.

Objective: Determine povorcitinib effects on quality of life (QoL) using the Dermatology Life Quality Index (DLQI) in patients with hidradenitis suppurativa (HS) in a phase 2 trial (NCT04476043).

Method: Adults (N=209; Hurley stage I–III) were randomized to once-daily (qd) povorcitinib 15mg, 45mg, 75mg, or placebo for 16 wk. Thereafter, patients (n=174) received povorcitinib 75mg qd during 36-wk open-label extension (OLE). Percentage of patients with baseline DLQI scores ≥4 achieving minimal clinically important difference (MCID; ≥4-point reduction from baseline; no missing data imputation was used) was calculated. Due to small sample sizes, statistical comparisons were not performed.

Results: Median (range) DLQI baseline total score overall was 11.0 (0–30.0; ie, "very/extremely large" QoL effect for most patients).
Among patients with baseline DLQI score ≥4, DLQI improvements with povorcitinib 45 and 75mg were apparent at Wk4. At Wk16, 35.0%, 51.3%, and 63.2% of patients receiving povorcitinib 15, 45, and 75mg, respectively, achieved DLQI MCID vs 34.2% with placebo. After crossover to povorcitinib 75mg (Wk16), higher percentages achieved DLQI MCID at Wk52 (15→75mg, 46.4%; 45→75mg, 70.4%; 75mg, 60.7%; placebo→75mg, 60.0%). The percentage of patients originally randomized to 75mg who achieved MCID remained stable between Wk16–52, suggesting maintenance of response.

During the placebo-controlled period (overall population), improvements in all 6 DLQI subdomain scores were observed in the povorcitinib groups vs placebo (highest-magnitude improvements vs placebo in Treatment, Work/School, and Personal Relations subdomains). Improvements in all DLQI subdomain scores continued in the OLE through Wk52

Discussion: In patients with HS, povorcitinib was associated with early and sustained improvements in total DLQI and DLQI subdomains. Probability of achieving DLQI MCID was greater with povorcitinib 45 and 75mg qd vs placebo. Povorcitinib has the potential to improve QoL in patients with severe HS symptoms.

Friday, October 13 · 4:10 p.m. - 4:20 p.m.

3000111 - Improving Care of Hidradenitis Suppurativa Patients in an Emergency Setting: A Quality Improvement Project

Georgia Williams[1], Ashley Riddle[2], Nina Lemieux[3], Christopher Wyatt[4], Simi Cadmus[5], Venessa Pena-Robichaux[2]

[1]Dell Medical School, University of Texas, Austin, TX, [2]Department of Internal Medicine, Division of Dermatology, Dell Medical School, University of Texas, Austin, TX, [3]Department of Pediatrics, Primary Children's Hospital, Salt Lake City, UT, [4]Department of Surgery and Perioperative Care, Division of Emergency Medicine, Dell Medical School, University of Texas, Austin, TX, [5]Farady Dermatology Associates, Austin, TX

Background: This project aims to improve the care of patients to the emergency room (ER) with flares of hidradenitis suppurativa (HS) by implementing an educational intervention for Emergency Medicine (EM) providers.

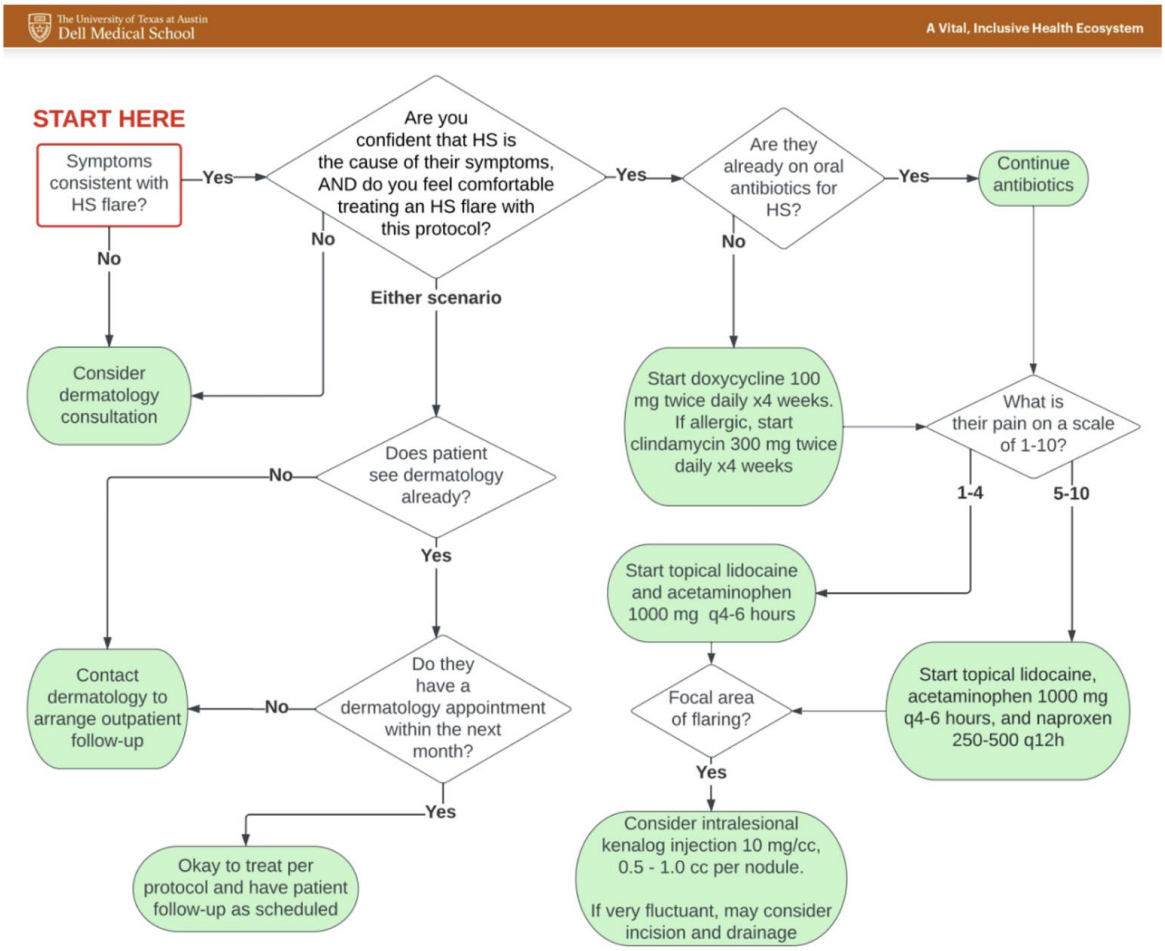
Objective: We hypothesized that an educational intervention targeting EM providers would result in improved confidence of providers in diagnosing and managing HS flares.

Method: On September 15th, 2022, a Grand Rounds presentation on the diagnosis and treatment of HS flares was delivered to the UT Austin Division of Emergency Medicine. A written treatment algorithm was subsequently distributed (Figure 1). An online survey was administered to assess

confidence in diagnosing and managing HS flares before, after, and 3 months following the intervention.

Results: Immediately following the intervention, EM providers reported improved confidence from baseline in treating acute HS flares, knowing when to consult dermatology for HS flares, and distinguishing HS flares from infection ($p<0.001$, all parameters). At 3 months post-intervention, ED providers still had statistically significantly improved confidence in knowing when to consult dermatology for HS flares ($p=0.025$) and treating acute HS flares ($p=0.037$) (Table 1).

Discussion: Use of this two-pronged educational intervention may improve ED provider confidence in caring for patients with acute flares of HS.



Algorithm created by Ashley Riddle, MD; Venessa Peña-Robichaux, MD; Simi Cadmus, MD; and Nina Lemieux, MS4

Based on the 2019 North American clinical management guidelines for hidradenitis suppurativa (PMID 30872149) and HS pain management algorithm created by Savage et. al (PMID 32950543)

Figure 1: Treatment Algorithm for Management of Acute HS Flares in the ED

Table 1: Responses to surveys administered to the UT Austin Division of Emergency

Variables	Test timing		
	Pre-intervention (n=27)	Immediately post-intervention (n=23)	3 months post-intervention (n=8)
Respondent Characteristics			
Level of training			
Attending	6 (22.2%)	4 (17.4%)	2 (25.0%)
Resident	18 (66.7%)	16 (69.6%)	6 (75.0%)
Medical student	3 (11.1%)	3 (13.0%)	0 (0.0%)
Years since completing training	4.2 (5.4)	3.50 (5.1)	4.5 (5.6)
Responses to Survey Questions			
"I feel confident in diagnosing an acute HS flare"			
Strongly disagree	2 (7.4%)	1 (4.4%)	0 (0%)
Disagree	3 (11.1%)	0 (0%)	0 (0%)
Neutral	6 (22.2%)	2 (8.7%)	0 (0%)
Agree	14 (51.9%)	13 (56.5%)	6 (75.0%)
Strongly agree	2 (7.4%)	7 (30.4%)	2 (25.0%)
"I feel confident in prescribing treatment for an acute HS flare"			
Strongly disagree	3 (11.1%)	1 (4.4%)	0 (0%)
Disagree	9 (33.3%)	1 (4.4%)	0 (0%)
Neutral	9 (33.3%)	1 (4.4%)	3 (37.5%)
Agree	6 (22.2%)	15 (65.2%)	3 (37.5%)
Strongly agree	0 (0%)	5 (21.7%)	2 (25.0%)
"I feel confident in distinguishing an acute HS flare from infection"			
Strongly disagree	2 (7.41%)	1 (4.4%)	0 (0%)
Disagree	9 (33.3%)	0 (0%)	1 (12.50%)
Neutral	6 (22.2%)	2 (8.7%)	1 (12.5%)
Agree	10 (37.0%)	14 (60.9%)	5 (62.5%)
Strongly agree	0 (0%)	6 (26.1%)	1 (12.5%)
"I know when to consult Dermatology for a patient with an acute HS flare"			
Strongly disagree	2 (7.4%)	1 (4.4%)	0 (0.0%)
Disagree	15 (55.6%)	0 (0%)	1 (12.0%)
Neutral	7 (25.9%)	3 (13.0%)	3 (37.5%)
Agree	3 (11.1%)	14 (60.9%)	2 (25.0%)
Strongly agree	0 (0%)	5 (21.7%)	2 (25.0%)

Friday, October 13 · 4:20 p.m. - 4:30 p.m.

3000161 – HiSQoL Changes Among HiSCR Responders and Nonresponders in a Phase 2 Study of Povorcitinib

Joslyn Kirby[1], Martin Okun[2], Afsaneh Alavi[3], Falk Bechara[4], Christos Zouboulis[5], Kurt Brown[6], Leandro Santos[6], Tara Jackson[6], Zhenyi Xue[6], Alexandra Kimball[7], Martina Porter[7]

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Brandenburg, Dessau, Germany, [6]Incyte Corporation, Wilmington, DE, USA, [7]Harvard Medical School and Beth Israel Deaconess Medical Center, Boston, MA, USA

Background: Hidradenitis suppurativa (HS) is a chronic inflammatory disease resulting in painful skin nodules, abscesses, draining tunnels, and scarring that create disability and negatively impact patients' quality of life (QoL). Objective clinical responses and patient-reported QoL measures are included in clinical trials.

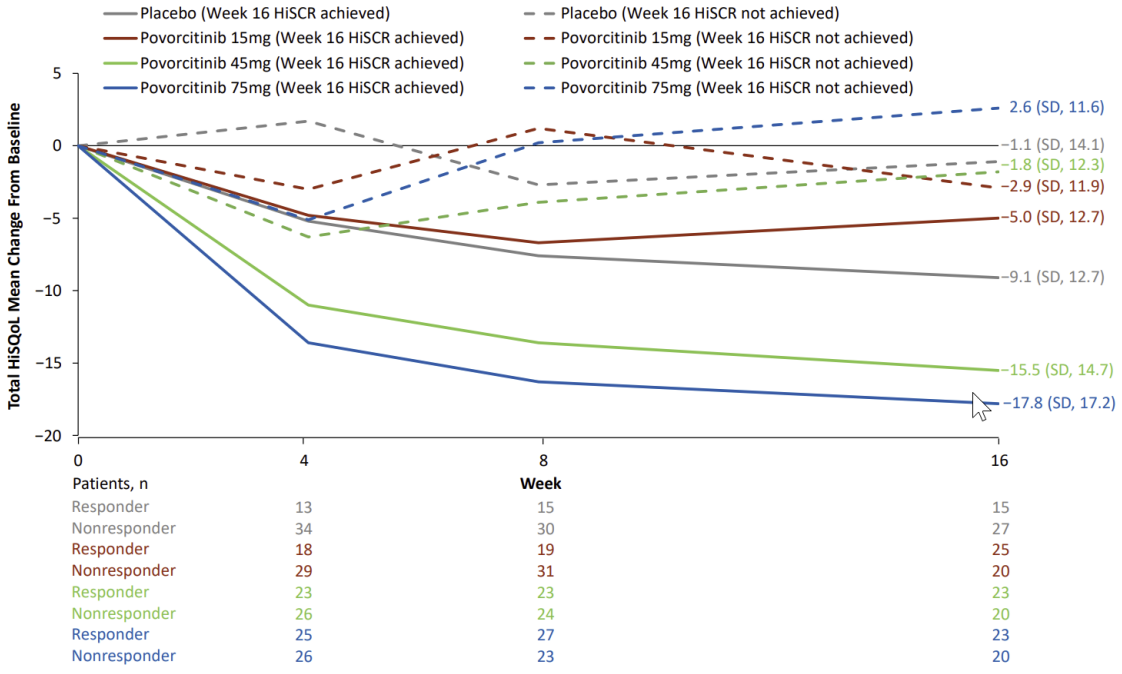
Objective: To explore the relationship between HS Clinical Response (HiSCR) and patient-reported QoL in a clinical trial of the oral selective Janus kinase (JAK)1 inhibitor povorcitinib in patients with HS.

Method: Post hoc descriptive analysis using data from 209 adults with HS randomized to once-daily povorcitinib 15mg, 45mg, 75mg, or placebo for 16 weeks in a phase 2 study (NCT04476043). Clinical response was assessed by HiSCR (≥50% decrease from baseline in abscess and inflammatory nodule count without increased number of abscesses or draining tunnels). QoL was evaluated using the 17-item HS QoL (HiSQoL) questionnaire and compared between HiSCR responders and nonresponders.

Results: HiSCR was achieved in 46.2%, 44.2%, 43.4%, and 28.8% of patients in the povorcitinib 15mg, 45mg, 75mg, and placebo groups, respectively, at Week 16. Among HiSCR responders, larger improvements from baseline in total HiSQoL, as well as its 3 subdomains, were observed with povorcitinib 45 and 75mg and were evident by Week 4 (Figure). Mean HiSQoL remained stable among HiSCR nonresponders.

Discussion: These phase 2 data suggest that disease-specific QoL tools such as HiSQoL are complementary to HiSCR in assessing the clinical benefit of povorcitinib in HS.

Figure. Total HiSQoL Score Mean Change From Baseline at Weeks 4, 8, and 16 in the Povorcitinib and Placebo Treatment Groups For Patients Who Did vs Did Not Achieve HiSCR at Week 16



HiSCR, Hidradenitis Suppurativa Clinical Response, HiSQoL, Hidradenitis Suppurativa Quality of Life.

Friday, October 13 · 4:30 p.m. – 4:40 p.m.

3000130 - Examining Persistence of Pain Character in Patients with Hidradenitis Suppurativa

Samantha Jacobson[1], Meron Siira[1], Harika Echuri[1], Lauren Orenstein[1]

[1]Emory University School of Medicine

Background: Pain is one of the most debilitating symptoms of hidradenitis suppurativa (HS), yet is poorly understood. Prior studies have demonstrated 30% prevalence of neuropathic pain in HS and suggested that a score of ≥13 on the painDETECT questionnaire optimizes sensitivity and specificity for detecting neuropathic pain in HS. It is unknown whether neuropathic pain character is consistent over time in HS patients.

Objective: To evaluate the consistency of neuropathic pain character in patients with HS during 16 weeks follow-up.

Method: This 16-week prospective cohort study assessed neuropathic pain character using the painDETECT questionnaire every four weeks. Eligibility required IHS4 score ≥4, age ≥18, and absence of other medical conditions causing pain or neuropathy. Data was analyzed using SAS. Neuropathic pain was considered present with a painDETECT scores ≥16 and absent with score >16.

Results: Study participants are 31.8 years old, on average, and are 87.5% Black, 6.25% Asian, 81.25% female-identifying, and 12.5% non-binary. 13 patients have at least one completed painDETECT questionnaire, with an average of 3.8 completed questionnaires. Rater reliability, calculated using Fleiss' Kappa (1979) was moderate (k=0.48), pointing to some persistence of pain character overtime. This study is actively enrolling, and a larger sample size is anticipated prior to conference presentation.

Discussion: This study demonstrates that neuropathic pain character may persist over time in HS. Additional studies are needed to characterize HS pain to enable effective treatments tailored to individual patients' pain types.

Friday, October 13 · 4:40 p.m. - 4:50 p.m.

3000078 – Hs Uncovered: Results from a Global Survey Revealing Patient Perspective in Hidradenitis Suppurativa

Georgios Kokolakis[1], Phillippe Guillem[2], Eva Vilarrasa[3], Ivette Alarcon[4], Mei Go[4], Gillian Newbold[5], Aikaterini Mamareli[5], Craig Richardson[4], Barry McGrath[6], Joslyn Kirby[7]

[1]Universitätsmedizin Berlin, [2]Surgery Department Val d'Ouest, Lyon, France, [3]Dermatology Department, Hospital de la Santa Creu I Sant Pau, Barcelona, Spain, [4]Novartis Pharma AG, [5]IQVIA, Integrated Research, EMEA, [6]HS Ireland, Hidradenitis Suppurativa Association, County Clare, Ireland, [7]Pennsylvania State University, College of Medicine

Background: Patients with hidradenitis suppurativa (HS) experience significant delays in diagnosis and frustrations with treatment efficacy. They often need to adhere to complex treatment regimens and diligently monitor their condition. Consequently, patients may develop a high level of knowledge, skill, and confidence to effectively cope with the challenges posed by HS.

Objective: To present results of a real-world survey evaluating HS patient's activation and its correlations with demographics, quality of life (QoL) and productivity.

Method: This patient-reported survey was conducted between November-2022 and February-2023 in 6 countries (US, UK, Germany, France, Italy, Spain). Adult patients who self-reported HS diagnosis

and were not participating in any other HS surveys in the previous 4 weeks were included. Primary endpoint was patient activation level via PAM13, a 13-item survey that assesses knowledge, skills, and confidence in self-management of their own health. Secondary endpoints evaluated disease burden and QoL impact.

Results: Overall, 505 patients with diagnosed HS participated in the survey and 66% of patients had high PAM13 scores (level ¾). A very large to extremely large QoL effect of HS (dermatology life quality index [DLQI] score 11–30) was reported by 67%/73% of patients with level ¾ PAM13 scores, respectively. In total, 61% of patients reported skin-related pain; 58% reported pain relief as the most important feature for a treatment to be considered effective and 52% were dissatisfied with current treatment. A higher proportion of patients with higher activation levels reported depression (32% vs lower levels: 21%), they also experienced a significant impact on work productivity (25% vs lower levels: 15% felt very/completely impacted). Regression models identified 'impact on work productivity' as a significant predictor of patient activation (impact coefficient=0.4).

Discussion: Despite a high level of activation, many patients in this survey reported a negative impact of HS on their QoL and work productivity.

Saturday, October 14 · 9:05 a.m. – 9:15 a.m.

3000140 - Responsiveness of the Hidradenitis Suppurativa Activity and Area Index Revised (HASI-R) in United States Registries

Noah Goldfarb[1], Sophie Fruechte[2], Zachary Wendland[2], Afsaneh Alavi[3], Michelle Lowes[4], Tierney Wallace[5], Tonya King[5], Joslyn Kirby[6]

[1]University of Minnesota / VAMC, [2]University of Minnesota, [3]Mayo Clinic, [4]The Rockefeller University, [5], Penn State Health Milton S. Hershey Medical Center, [6]Pennsylvania State University, College of Medicine

Background: The Hidradenitis Suppurativa Area and Severity Index Revised (HASI-R) is a novel tool for hidradenitis suppurativa (HS) to measure disease activity and treatment response based on body surface area and signs of inflammation.

Objective: Evaluate HASI-R: 1) criterion validity, 2) known-groups validity, 3) responsiveness, and 4) clinically meaningful important difference (MID)

Method: Patients were enrolled from two large academic centers in the United States (US) diagnosed with HS. Patients were included in the analysis if they had clinician-reported outcomes measures (ClinRo) assessed at two time points. Demographics, Dermatology Life Quality Index (DLQI), and ClinRo's (HASI-R, Hurley stage, International Hidradenitis Suppurativa Severity Score System [IHS4], abscesses and inflammatory nodule [AN] count) were analyzed.

Results: Overall, 87 patients were included. At baseline, HASI-R had high correlation with Hurley stage ($r=0.72$, $p<0.001$) and IHS4 ($r=0.87$, $p<0.001$). Importantly, there was a statistically significant, negative correlation with reverse-scored DLQI ($r=-0.38$, $p<0.001$). At baseline, HASI-R demonstrated known-groups validity with a statistically significant difference between the mean HASI-R scores across each Hurley stage ($p<0.05$). For responsiveness, change in HASI-R had moderate correlation with the number of draining tunnels ($r=0.51$, $p=0.02$). A change in HASI-R had moderate correlation with change in AN count ($r=0.41$, $p=0.04$). MID for the HASI was determined based on those achieving a MID or greater change in the DLQI (4 or more points). This corresponded to a 40-60% or more reduction in HASI-R, with stable or decreased tunnel subscale.

Discussion: HASI-R is a valid severity assessment tool for HS. In this small study, HASI-R had moderate correlation with other ClinRos. A 40-60% reduction in HASI-R, with stable/decreased tunnel subscale, was associated with a clinically meaningful improvement in DLQI. Larger, prospective studies are needed to confirm.

Saturday, October 14 · 9:15 a.m. - 9:25 a.m.

3000117 – Survey-Based Study Evaluating Breastfeeding Practices in Patients with Hidradenitis Suppurativa

Linnea Westerkam[1], Rahul Masson[2], Jennifer Hsiao[3], Christopher Sayed[4]

[1]University of North Carolina at Chapel Hill/School of Medicine, [2]Keck School of Medicine, University of Southern California, Los Angeles, CA, USA, [3]Department of Dermatology, University of Southern California, Los Angeles, California, USA, [4]University of North Carolina School of Medicine Department of Dermatology, North Carolina, USA

Background: Hidradenitis suppurativa (HS) is a chronic inflammatory skin condition with highest incidence during reproductive years. Medical treatment includes antibiotics, hormonal therapy, and immunomodulators. Over the years, medication safety during breastfeeding has become better characterized, however, patients may be unaware of safety and may be hesitant to continue medications or breastfeed. Breastfeeding is likely impacted by HS, especially since the axillae and inframammary areas are commonly affected.

Objective: The purpose of this study is to better understand patient perceptions and experiences regarding HS and breastfeeding.

Method: Patients diagnosed with HS seen at the University of North Carolina and University of Southern California dermatology clinics who had given birth within 15 years were invited to complete a survey about HS disease activity and treatments and their impact on breastfeeding.

Results: Of the 72 participants, 22 reported that they abstained from or limited breastfeeding duration or found breastfeeding more difficult due to HS activity. All of these participants had disease activity involving the breasts or underarms after delivery. Of the those reporting no impact of HS on breastfeeding, 17 had disease activity involving the underarms or breasts, while the remaining 32 had disease activity in other body regions or no disease activity during this time. Twenty-three participants declined HS treatments or chose not to breastfeed due to HS treatments.

Discussion: HS disease activity and patient concerns regarding HS treatments may have significant impact on breastfeeding practices. Additional studies and initiatives are needed to optimize care for HS patients wanting to breastfeed.

Table 1: HS patient concerns regarding breastfeeding

Patient concern	Number of participants (%)
HS lesions on underarms or breasts made it too painful	17 (77.3%)
Concern about child coming into contact with HS	15 (68.2%)
Concern for passing on HS through breastmilk	7 (31.8%)
HS impacted time and energy to breastfeed	8 (36.4%)
Concern that breastfeeding would prevent effective treatments	3 (13.6%)

Saturday, October 14 · 9:25 a.m. – 9:35 a.m.

3000166 - Complication Rates in HS Surgery among Patients with Concurrent Smoking, Obesity, or Diabetes Mellitus

Rayad Shams[1], Christopher Sayed[2]

[1]Univ. of North Carolina at Chapel Hill, School of Medicine, [2]University of North Carolina School of Medicine Department of Dermatology, North Carolina, USA

Background: Surgical intervention has shown long-term efficacy in the treatment of Hidradenitis Suppurativa (HS). However, the presence of smoking, obesity, or Diabetes Mellitus (DM) may act as a deterrent to pursuing surgery.

Objective: The purpose of our study was to evaluate the prevalence of these comorbidities in patients undergoing HS surgery and analyze associations with increased surgical complication rates.

Method: We conducted a literature review utilizing the Medical Subject Heading (MESH) term "Hidradenitis Suppurative" on PubMed and "surgery" subheading. Resulting research articles were manually reviewed to exclude meta-analyses, other literature reviews, studies involving <10 patients, or non-surgical interventions. We recorded the prevalence of obesity, smoking, and DM in patients in the remaining studies and noted associations of these comorbidities with increased rates of surgical complications.

Results: 67 studies and 7390 patients met the final inclusion criteria. Patients were predominantly female (60.3%, 4397/7292), and white (51.2%, 2269/4433). 55.1% of patients were active or former smokers (3907/7085), 45.3% were obese (2025/4466), and 21.4% were diabetic (1023/4784). Among the selected studies, 19.4% (13/67) investigated the effects of at least one of these comorbidities on surgical complication rates. None of the studies (0/12) found a correlation between increased complication rates and smoking. Obesity was associated with increased complications in 36.4% (4/11) studies, with wound dehiscence being the most common complication (2/4). Finally, 16.7% of the studies (1/6) reported higher hospital readmission rates in patients with DM.

Discussion: Obesity, DM, and smoking are prevalent comorbidities in patients undergoing HS surgery although few studies explored their association with surgical complication rates. No studies correlated smoking status with increased complication rates and a minority correlated increased surgical complications with obesity and DM. Our findings suggest that the presence of smoking, obesity, or Diabetes Mellitus should not deter the consideration of surgery as a viable treatment option for Hidradenitis Suppurativa.

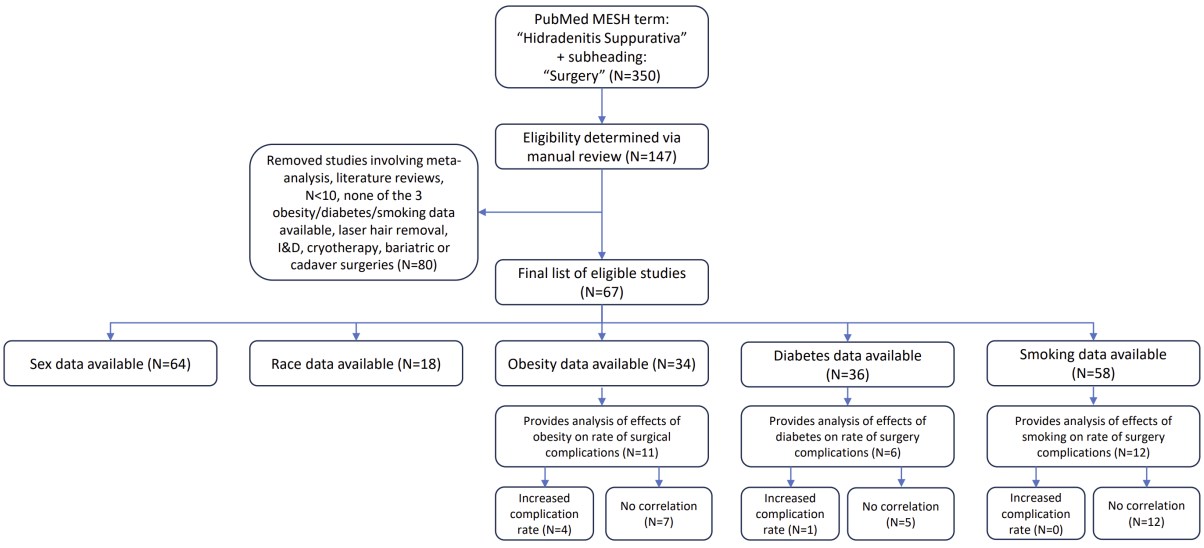


Figure 1: Methodology of literature review to evaluate prevalence of obesity, Diabetes Mellitus, and smoking in patients undergoing Hidradenitis Suppurativa surgery and results of associated surgical complications.

Table 1. Demographics of patients undergoing surgical interventions for Hidradenitis Suppurativa based on literature review	
Demographic Variable	**N (%)**
Total Number of Patients undergoing surgery for HS	7390 (100%)
Sex (N=7292)	
Male	2895 (39.7%)
Female	4397 (60.3%)
Race (N=4433)	
Black	1638 (38.0%)
White	2269 (51.2%)
Other	329 (7.4%)
Not Reported	152 (3.4%)
Obese (N=4466)	2025 (45.3%)
Diabetic (N=4784)	1023 (21.4%)
Smoker (N=7085)	3907 (55.1%)

Saturday, October 14 · 9:35 a.m. - 9:45 a.m.

3000137 – Predictors of Surgical Outcomes in Hidradenitis Suppurativa: A Scoping Review

Kaiyang Li[1], Richie Jeremian[1], Wei Guang Bi[2], Naila Bouadi[3], Kyle Seigel[4], David Croitoru[5], Vincent Piguet[6]

[1]McGill University Faculty of Medicine, [2]Schulich School of Medicine and Dentistry, Western University, [3]Faculté de médecine, Université Laval, [4]Temerty Faculty of Medicine, University of Toronto, [5]University of Toronto Division of Dermatology, [6]University of Toronto

Background: Hidradenitis suppurativa (HS) frequently requires surgical management due to its recalcitrant and debilitating nature; however, outcomes vary widely across patients and interventions. Few studies have comprehensively examined predictors of postoperative outcomes in HS.

Objective: To elucidate factors affecting HS surgical outcomes.

Method: In this scoping review, we searched EMBASE using keywords related to HS and surgery until May 2023. We included all studies reporting significant findings on prognostic factors without language or study type restriction.

Results: A total of 46 unique studies were included, comprising 2 RCTs, 1 meta-analysis, 1 case-control study, 2 case series, and 40 cohort studies. Patient outcomes encompassed several categories, including disease improvement, postoperative recovery, patient satisfaction, disease recurrence, surgical complications, and quality of life. Prognostic factors identified were type of wound closure and reconstruction (primary closure, secondary intention healing, vacuum-assisted, use of flaps or grafting) in 13 studies (28%), age in 8 studies (17%), body weight in 7 studies (15%), surgery type (radical excision, limited excision, deroofing, incision and drainage, combined laser and CO2), anatomical location operated, disease severity, and affected skin areas in 6 studies each, as well as excision size and biologic drug use in 5 studies each. Other identified prognostic factors comprised alcohol use, smoking, antibiotic use, patient comorbidities, history of previous surgery, sex, race, socioeconomic status, number of procedures, preoperative delimitation, surgical specialty, concurrent medical management, disease duration, in/outpatient setting, follow-up procedures, and

multidisciplinary care. Specifically, obesity, younger age (both at disease onset and time of surgery), non-radical excisions, heavy smoking (>30 cigarettes/day), alcohol consumption, and a greater number of skin areas affected were associated with higher disease recurrence. Split-thickness skin grafting was associated with more complications, recurrence, and longer hospital stays.

Discussion: We identified key predictors of postoperative outcomes to support the optimization and personalization of surgical interventions in patients with HS.

Saturday, October 14 · 9:45 a.m. – 9:55 a.m.

3000086 – NETs Activate Notch- g–Secretase Signaling in Macrophages and Fibroblasts and Promote Pro-Fibrotic Responses in Hidradenitis Suppurativa

Carmelo Carmona-Rivera[1], Christopher B. Oliveira[1], Jorge R. Romo-Tena[1], Eduardo Patino-Martinez[1], Alexandra Woo[1], Angel S. Byrd[2], Ginette A. Okoye[2], Mariana J. Kaplan[1]

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Background: Hidradenitis suppurativa (HS) is an incapacitating inflammatory skin characterized by profound inflamed abscess-like nodules and boils resulting in sinus tract formation and tissue scarring. HS tissue displays exuberant Neutrophil extracellular traps (NETs) accumulation in association with disease severity. Notch signaling, in particular g-secretase, has been associated with HS pathogenesis, but the mechanism remains unknown.

Objective: We hypothesized that NETs activate g-secretase signaling in immune and structural cells, leading to pathogenic dysregulation of cells and skin architecture in HS patients.

Method: Western blot and quantitative PCR were used to interrogate and analyze HS skin lesions lysates and cells. Activity of g-Secretase was assessed by fluorescence assay. Macrophages and fibroblasts were isolated from HS patients and analyzed.

Results: Elevated levels of Notch ligands, delta-like ligand 4 (DLL4) and jagged 2 (JAG2) were found in HS. Levels of DLL4, JAG2 and g-secretase activity correlated with disease severity, as measured by Hurley staging. Additionally, levels of Notch ligands and g-secretase activity were increased in dissected sinus tracts when compared to the rest of HS tissue. Immunofluorescence microscopy performed in HS skin lesion showed activation of Notch 1 signaling in macrophages and skin fibroblasts. DLL4 was elevated in isolated neutrophil extracellular traps (NETs) from HS patients. Macrophages and skin fibroblasts isolated from HS patients displayed activation of Notch signaling when compared to healthy controls. HS-NETs activated Notch pathway in control macrophages and dermal fibroblasts. HS skin fibroblasts displayed elevated levels pro-fibrotic genes and increased migratory capacity when compared to control fibroblasts. NETs from HS patients increased g-secretase activity, migratory capacity and the release of pro-fibrotic molecules in control fibroblasts while pharmacologic inhibition of g-secretase decreased migratory capacity of HS fibroblasts.

Discussion: These data support a pathogenic role of NETs in the activation of Notch/g-secretase signaling promoting dysregulation of macrophages and skin fibroblasts in this disease.

Saturday, October 14 · 9:55 a.m. – 10:05 a.m.

3000167 – Inflammatory Modulation Correlates with Clinical Scarless Tunnel Resolution after Novel Anti-Biofilm Therapy for Hidradenitis Suppurativa Tunnels

Nathan Balukoff[1], Tammy Tammy Gonzalez[1], Jamie Burgess[1], Divya Chopra[1], Caralin Schneider[1], Nicole Vecin[1], Natasa Strbo[1], Hadar Lev-Tov[1], Irena Pastar[1]

[1]*Dermatology and Cutaneous Surgery, University of Miami, Miami, FL*

Background: The function of the epidermis is significantly compromised during the development of the hidradenitis suppurativa (HS) characterized with microbiome dysbiosis. Resident keratinocytes erroneously migrate into the surrounding area forming an epithelial, intra-dermal tunnel primary driver of chronic inflammation and disease severity. In addition, HS tunnels are colonized by bacteria that form treatment-resistant biofilms.

Objective: Persistent biofilms are hypothesized to contribute to an aberrant inflammatory response and, subsequently, the relapsing nature of HS. We previously reported 93% clinical tunneling wound resolution at an average of 12 days after a novel procedure to instill antibiofilm surfactant gel in HS tunnels. Here we investigated the host response after the procedure.

Method: Subjects (n=15) underwent the novel procedure identifying one isolated tunnel at the initial visit and lesional tissue was collected. Subjects then instilled the antibiofilm surfactant gel daily into the tunnel, and tunnel tissue was collected 28 days after the procedure for evaluation of inflammatory response and bacterial load. RNA isolation before and after treatment and subsequent qPCR were utilized to evaluate gene expression of major pro-inflammatory cytokines associated with HS.

Results: We observed significant reduction of INFgamma, IL-17, IL-6 and IL-8, and trend of TNFa and C5A suppression in tissue collected post-treatment. Flow cytometric analysis of leukocyte cell subsets in HS lesions confirmed higher frequency of multiple immune cell subsets including, CD8+ T cells, GD T cells, B cells, macrophages and neutrophils in lesional skin prior to treatment, while antibiofilm treatment resulted in reduction of neutrophils, mast cells and the M2 macrophages. The suppression of inflammatory response correlated with the reduction of scaring and reduced bacterial load measured by 16s rDNA quantitative PCR. Microbiome analyses confirmed reduction in anaerobic species post-treatment.

Discussion: We conclude that targeting HS tunnels with anti-biofilm therapeutics offers novel treatment approach to suppress inflammation, restore healthy microbiome and repair barrier function.

Saturday, October 14 · 11:05 a.m. – 11:15 a.m.

3000088 – Elucidating the Pro-Inflammatory Profile of Hidradenitis Suppurativa from Defined Histopathology

Nicole Vecin[1], Nathan Balukoff[1], Andrew Sawaya[1], Lindsey Siegfried[1], Rebecca Verpile[1], Jelena Marjanovic[1], Tammy Gonzalez[1], Hadar Lev-Tov[1], Marjana Tomic-Canic[1], Irena Pastar[1]

[1]*Miller School of Medicine, University of Miami*

Background: Hidradenitis suppurativa (HS) is a debilitating inflammatory disease characterized by diverse morphology including nodules, abscesses, and epithelialized tunnels. Although the heterogeneity of HS histopathology has been recognized, it represents a challenge in molecular analyses and comprehensive understanding of disease pathology.

Objective: To overcome the complexity of HS and obtain the pro-inflammatory profile of defined histopathology, we performed retrospective analysis of inflammatory status and microbial load from the formalin-fixed paraffin-embedded (FFPE) tissue specimens.

Method: FFPE samples from HS lesional and tunnel specimens (n=13) and healthy skin controls (n=7) were used for RNA and DNA isolation and real-time qPCR of pro-inflammatory mediators coupled with the 16s rDNA-based microbiota quantification. Immunohistochemical staining for CD45 and myeloperoxidase and was utilized to confirm the number of infiltrates, while staining for keratin-17 (K17) evaluated for the presence of activated keratinocytes.

Results: Simultaneous extraction of RNA and DNA was optimized from FFPE tissue determining 4mm biopsy as sufficient. RT-qPCR confirmed upregulation of TNF-□, IL-17, INF-□, IL-23, IL-1□, IL-6, and IL-8 in all HS samples. While C5a expression was not found upregulated in all samples, HS tissue containing tunnels had increased expression of C5a expression compared to specimens without tunnels. CD45 and MPO staining confirmed inflammation in all samples analyzed. Location-specific K17 staining was predominantly associated with the HS tunnels. 16s rDNA qPCR-based bacterial quantification indicated increased microbial load in HS specimens compared to healthy skin.

Discussion: Due to the complex pathogenesis of HS, treatment modalities remain scarce with only one FDA-approved treatment, showing limited efficacy. This method allows for comprehensive evaluation of HS pathology from a defined FFPE sample enabling simultaneous host-microbiome evaluation from a single 4mm biopsy. Our data also provide rationale for the utilization of this method to allow personalized treatment and guide clinical trials and outcomes, enabling further understanding of disease progression.

Saturday, October 14 · 11:15 a.m. – 11:25 a.m.

3000142 – Laser Hair Reduction is an Effective Treatment Option for Patients Suffering from Hidradenitis Suppurativa.

Akhil Wadhera[1], Barbara Garcia[1], Sheng-Fang Jiang[1]

[1]Kaiser Permanente

Background: Hidradenitis Suppurativa (HS) is a chronic, recurrent and debilitating disease in which the disease process is centered around the hair follicle and stem cells located in the hair bulb. Inflammation of the hair follicles leads to the formation of the sinus tracts and progression of the disease. There is emerging evidence that destruction of hair follicles and accompanying stem cells using lasers can not only help control this condition, but also induce long term remission.

Objective: In this study we investigated the effectiveness of laser hair reduction in HS for patients of all Hurley Stages using the Hidradenitis Suppurativa Clinical Response (HiSCR).

Method: We conducted a single center, retrospective, cohort study of HS patients treated with LHR to determine the efficacy of LHR in treating HS by determining the percent of patients achieving HiSCR and comparing it to the efficacy of adalimumab for treating HS in previously published studies. Long pulsed NDYag laser was used for the treatments. One RN did most of the treatments, with # of treatments ranging from 3 to 22.

Results: Eighty-two patients met the inclusion criteria and had at least 3 LHR treatments. Based on a review of the before and after pictures, 70% of the patients (all Hurley Stages) achieved HiSCR: 74% of patients with Hurley Stage I and II and 44.4% of patients with Hurley Stage III achieved HiSCR.

Discussion: Based on the results of our study, LHR is a very effective modality for the treatment of mild to moderate HS when compared to the only FDA approved medical treatment for HS, adalimumab. LHR is being recognized as an important treatment option for the treatment of HS and we hope this study will encourage other providers to start using LHR for the treatment of HS, thus avoiding the morbidity and cost burden of biologic medications.

Saturday, October 14 · 11:25 a.m. – 11:35 a.m.

3000148 – Dysregulation of Long Non-Coding Rnas (lncRNA) May Be the Future Biomarker to Predict and Monitor Patient Journey in Hidradenitis Suppurativa

Giovanni Damiani[1], Uppala Radhakrishna[2]

[1]University of Milan, [2]University of Pittsburgh

Background: Recently, hidradenitis suppurativa epigenetics started to be explored and translationally used to instruct new treatments. Unfortunately, long noncoding RNAs (LncRNAs), the epigenetic status regulators, were neglected but potentially eloquent in pathogenesis global comprenhension.

Objective: To described and understand the role of lncRNAs in HS.

Method: In this case-control study PBMCs of HS patients and age-, sex- and BMI- matched controls were analysed to characterize methylome of ncRNAs. Gene ontology analysis (GO) and Kyoto Encyclopedia of Genes and Genomes (KEGG) pathway analysis, protein-protein interaction (PPI) network, and MCODE analysis were performed.

Results: Data highlighted that 15 (10 hypermethylated and 5 hypomethylated) lncRNAs are associated with HS. ROC curve analysis showed that LncRNA PCA3 was the best candidate for this lncRNA (95% CI: 0.0.89–1.00, FDR p = 0.0160683). The other important identified dysregulated genes were TUG1, HAR1A, DLEU2, HCG9, and CASC2 involved in various types of cancers, inflammation, psychiatric disorders, apocrine sweat glands, obesity, and overweight.

Discussion: HS patients display a specific LncRNAs methylome that could be targeted to treat the well-known dymethylations pathological status capable to trigger and maintain local and systemic inflammation.

Saturday, October 14 · 11:35 a.m. – 11:45 a.m.

3000038 - Infectious Disease Screening Prior to Systemic Immunomodulatory Therapy in Hidradenitis Suppurativa: Consensus Guidelines from the Asia-Pacific Hidradenitis Suppurativa Foundation

Emily Kozera[1], Martina Porter[2], So Yeon Paek[3], Dillon Mintoff[4], Erin McMeniman[5], Hazel Oon Hwee Boon[6], Nisha Suyien Chandran[7], Katalin Glasenhardt[8], Hans Christian Ring[9], John Frew[10]

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Background: Current infectious disease screening recommendations for hidradenitis suppurativa (HS) are adopted from recommendations in chronic plaque psoriasis. No HS-specific guidelines for infectious disease screening prior to immunomodulatory therapy have been developed.

Objective: To establish an expert Delphi consensus of recommendations regarding infectious disease screening prior to systemic immunomodulatory therapy in HS.

Method: Participants were identified via recent publications in the field and were sent a questionnaire regarding infectious diseases encountered in the setting of HS, and opinions regarding infectious disease screening prior to various systemic immunomodulatory therapies. All questions were informed by a systematic literature review regarding infections exacerbated or precipitated by monoclonal antibody (anti-TNF-alpha) therapy. Questionnaire responses were followed by round-table discussion with a core group of 8 experts followed by a final round of questionnaires resulting in achievement of consensus.

Results: 44 expert HS physicians from 12 countries on 5 continents participated in the development of the expert consensus recommendations. Consensus recommendations include screening for hepatitis B, hepatitis C and tuberculosis in all individuals with HS prior to therapy. All immunomodulatory therapies (biologic and systemic immunosuppressant therapy) should be preceded by infectious disease screening including patient and location specific considerations for endemic local diseases and high-risk activities and occupations. Clinical assessment has a significant role in determining the need for laboratory screening in the setting of many uncommon or tropical diseases such as leprosy, leishmaniasis and strongyloidiasis.

Discussion: The presented consensus recommendations are the first specifically developed for pre-treatment infectious disease screening in Hidradenitis Suppurativa.

Saturday, October 14 · 2:05 p.m. - 2:15 p.m.

3000164 – Development of a Novel Regulatory T Cell-Based Therapy for Patients with Hidradenitis Suppurativa

Sara Charmsaz[1], Jeff Tracy[1], John Bui[1], Kathryn A Hooper[1], Alexandra Kimball[2], Martina Porter[3], Ruby Gibson[3], Corey Snyder[3], Joshua Beilke[1], Michelle Blake[1], Anne-Renée van der Vuurst de Vries[1]

[1]Sonoma Biotherapeutics, [2]Harvard Medical Faculty Physicians at Beth Israel Deaconness Medical Center, Inc., [3]Beth Israel Deaconess Medical Center

Background: Hidradenitis suppurativa (HS) is a chronic inflammatory skin condition, with limited treatment options. While the exact pathophysiology of HS is unknown, recent studies have demonstrated a role for immune dysregulation leading to excessive inflammation. Citrullination, a post-translational modification, occurs on multiple proteins in response to inflammation and is detected in inflammatory conditions including rheumatoid arthritis and HS.

Objective: To develop an autologous chimeric antigen receptor regulatory T-cell (CAR-Treg) therapy targeting citrullinated proteins, with the aim to mitigate inflammation and restore immune balance.

Method: A CAR containing an extracellular binding domain specific for citrullinated proteins and an intracellular signaling domain was encoded into a lentiviral vector. Blood samples were collected from individuals diagnosed with HS (Hurley stage 2 and 3) and on a stable therapy as well as from healthy donors (HDs). These samples were utilized to assess Treg phenotype and examine the feasibility of generating CAR-Tregs from HS patients. A reporter assay using CAR-expressing Jurkats was utilized to evaluate the specificity and the activation of the CAR upon binding of citrullinated-antigen. The presence of inflammation and citrullinated proteins were evaluated via histological methods in HS involved and uninvolved skin.

Results: CAR-Tregs produced from these patients have a similar phenotype as CAR-Tregs produced from HDs. CAR activity was specific to citrullinated antigens with no reactivity to non-citrullinated controls. Immunohistochemical evaluation of HS skin lesions revealed an elevated level of

inflammation and CAR-target antigen expression in HS lesional skin (n=58) compared to normal adjacent HS skin (n=10).

Discussion: Our results show that CAR-Tregs specific for citrullinated proteins can be produced from HS blood. We also demonstrated the presence of citrullinated proteins in HS skin lesions. Treatment with CAR-Tregs may represent a novel therapeutic option that can dampen inflammation and restore immune tolerance in patients with HS.

Saturday, October 14 · 2:15 p.m. – 2:25 p.m.

3000040 - B-Cell and Granulocyte Associated Chemokines Are Associated with Clinical Response to the Janus Kinase Inhibitor Upadacitinib in Hidradenitis Suppurativa

Akshay Flora[1], Rebecca Jepsen[2], James Pham[1], John Frew[3]

[1]Liverpool Hospital, Sydney, [2]Holdsworth House Medical Practice, Sydney, Australia, [3]University of New South Wales

Background: Background: Hidradenitis Suppurativa is a complex inflammatory disease in need of novel therapeutics. We have previously reported a cohort of individuals successfully treated with Upadacitinib, a Janus Kinase inhibitor, demonstrating clinical response as early as 4 weeks of treatment. Herein we report the results of serum proteomic analysis of eight (8) individuals treated with Upadacitinib 15mg daily for four (4) weeks to assess immediate changes to the serum proteome with this treatment modality.

Objective: Objective: To assess changes in the serum proteome in individuals with Hidradenitis Suppurativa treated with Upadacitinib 15mg daily for four (4) weeks.

Method: Method: 5mL of serum was collected from all participants at baseline and week 4 and analysed using the OLINK proteomic inflammation panel (92 analytes). Results were analysed using R language. Comparison between groups was made using the student t-test with adjustment for multiple comparison made using the Benjamini-Hochberg procedure. DEPs were defined as those with absolute fold change >1.2 and P< 0.05.

Results: Results: The baseline HS proteome was significantly different to age and BMI-matched healthy controls. Treatment with Upadacitinib 15mg daily resulted in 5/92 differentially expressed proteins (defined as fold change >1.2 and p<0.05). These included CX3CL1, Flt3L, MCP-1, IL-12B and BetaNGF. Pathway analysis demonstrated significant enrichment of IL-23 pathway, IL-10 pathway and interleukin 12 family signalling. Stratification by clinical responders at HiSCR50 and HiSCR75 identified additional significant dysregulated serum proteins including IL-10, CCL19, CCL20, IL-8 and CXCL6.

Discussion: Discussion: Upadacitinib therapy after only four (4) weeks of treatment illustrates significant differences in serum proteomic profiles. Clinically significant improvement is associated with lower levels of B cell chemoattractant including CCL19 and CCL20 as well as neutrophilic inflammatory markers such as IL8 and CXCL6. These markers may represent potential serum biomarkers for clinical response to JAK inhibition in HS.

Saturday, October 14 · 2:25 p.m. - 2:35 p.m.

3000072 – Identification of Distinct Inflammatory Proteomes between African American and White Patients with Hidradenitis Suppurativa

Rachel Krevh[1], Peter Dimitrion[1], Jesse Veenstra[1], James Ge[1], Aamir Siddiqui[1], Deangelo Ferguson[1], Aakash Hans[1], Bobby Zuniga[1], Li Zhou[1], Iltefat Hamzavi[1], Indra Adrianto[1], Qing-Sheng Mi[1]

[1]Henry Ford Health

Background: Patients with hidradenitis suppurativa (HS) have elevated levels of circulating inflammatory proteins. Despite significant ethnic disparities, no study has sought to elucidate proteomic signatures that may differ in ethnic subgroups of patients with HS.

Objective: To determine whether AA and white non-Hispanic (WNH) patients with HS have different inflammatory proteomes.

Method: 72 patients with HS and 24 age-, ethnicity- and sex-matched healthy controls (HCs) were analyzed using the Olink Inflammation II proteomics platform (359 proteins). Linear regression was employed to define differentially expressed proteins (DEPs), while correcting for age, sex, and ethnicity. DEPs were determined for HS vs HC overall, AA-HS vs. AA-HC, and WNH-HS vs. WNH HC. Ingenuity pathway analysis (IPA) was used to determine pathway enrichment of DEPs.

Results: Patients with HS had 55 differentially expressed proteins (DEPs; false discovery rate (FDR) < 0.05, exact fold change (|FC|) > 1.5)- 50 were increased and five decreased after correcting for age, sex, and ethnicity. Compared to their respective HCs, AA patients had 29 DEPs (FDR < 0.1, |FC| >1.5)- 24 increased and 5 decreased- and WNH patients had 48 DEPs (FDR < 0.1, |FC| >1.5)- 45 increased and 3 decreased. Only 8 DEPs were common between AA and White patients with HS. IPA enrichment of unique DEPs showed convergence on HS-associated pathways (e.g., IL-17 and B cell signaling), but also unique pathways.

Discussion: Proteomic signatures between AA and WNH patients with HS were observed to be more dissimilar than similar. DEPs from AA and WNH were both enriched for key pathways identified in HS pathophysiology (i.e., IL-17 and B cell signaling). However, pathways specific to each group were also enriched. This discovery highlights that unique signaling molecules may promote dysregulation of common pathways and strongly advocates for the inclusion of diverse patient cohorts in future HS translational studies.

Saturday, October 14 · 2:35 p.m. – 2:45 p.m.

3000132 – Antigen-Dependent in Situ Differentiation and Immunomodulatory Potential of Infiltrating B Cells in Hidradenitis Suppurativa

Gordon Dale[1], Karla Navarrete[2], Patrick Speck[3], Meron Siira[3], Samantha Jacobson[3], Harika Echuri[3], Troy von Beck[2], Lauren Orenstein[3], Joshy Jacob[2]

[1]Ragon Institute, [2]Emory Vaccine Center, [3]Emory University School of Medicine

Background: Hidradenitis suppurative (HS) is chronic inflammatory skin disease characterized by painful lesions at sites of intertriginous skin. While relatively little is known about the immunopathogenesis of HS, B cell infiltration and autoreactive antibodies in the skin have emerged as hallmarks of disease. To clarify infiltrating B cell activity, we conducted single cell transcriptomics and repertoire analysis on B cells and plasma cells from patient surgical excisions and peripheral blood.

Objective: The objective of this study was to identify transcriptional programs and clonal dynamics of skin-infiltrating B cell populations in HS lesional skin.

Method: Seeking to understand the B cell dynamics of HS on a single cell level, we characterized the single cell transcriptional profiles and matching V(D)J repertoires of B cells derived from whole blood (WB) (n=3) and surgical skin excisions (n=4) from patients with moderate-to-severe HS. This was accomplished using the 10x Genomics Chromium platform on peripheral blood mononuclear cells isolated from WB and positively selected CD19+, and BCMA+ B lineage cells from surgical excisions. 2 patients donated both WB and excisions.

Results: We found that infiltrating B cells undergo in situ plasma cell differentiation that progresses through distinct transitional states. Infiltrating B cells have an altered transcriptional program regulated by CREM and REL, which is replaced by expression of the AP-1 signaling complex upon differentiation. B cells contribute to inflammation in the skin by producing TNFa and a transient cytokine burst of IL-1b, CXCL8, and CXCL14 is associated with their differentiation. A large subset of B cells produce anti-inflammatory TGFb, indicating an immunosuppressive function in the skin. Finally, our repertoire analysis revealed that selection is antigen-driven based on preferential differentiation of class-switched, high mutation clones.

Discussion: This study elucidates the population dynamics of B cells in HS lesional skin and highlights a dual role for B cells as pro- and anti-inflammatory agents.

Saturday, October 14 · 2:45 p.m. – 2:55 p.m.

3000112 – Preliminary Findings from a Prospective Therapeutic Drug Monitoring Study for Hidradenitis Suppurativa

Stella Chen[1], Corey Snyder[2], Ruby Gibson[3], Sydney Look-Why[4], Thierry Dervieux[5], Tracey Otto[6], Julia Gao[6], Alexa Kimball[7], Martina Porter[8]

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Background: It is unknown why some hidradenitis suppurativa (HS) patients experience inadequate response to adalimumab. Therapeutic drug monitoring (TDM) has been proposed, but validated adalimumab levels have not been established in HS.

Objective: To characterize therapeutic adalimumab levels for HS patients.

Method: We conducted a prospective TDM study in HS patients receiving 40-80 mg weekly maintenance adalimumab. Adalimumab response was graded as low (<50% improvement), medium (50-75% improvement), or high (>75% improvement) compared to exam prior to adalimumab. Grades were validated against questionnaires, lesion counts, and inflammatory markers, which were obtained before blood draws to avoid recall bias. Adalimumab concentration and anti-drug antibodies were obtained using validated assays from Prometheus Laboratories.

Results: Of the first 30 patients enrolled, 10% were Hurley stage I, 60% were Hurley stage II, and 30% were Hurley stage III. Response to adalimumab correlated with HS-PGA, HIS4, DLQI, and hsCRP. Mean adalimumab concentration was 13.5 ± 4.5 ug/mL for low responders, 15.6 ± 2.7 ug/mL for medium responders, and 23.9 ± 3.8 ug/mL for high responders (p=0.071, high vs low and medium). Anti-drug antibodies were present in 43%, 23%, and 0% of low, medium, and high responders, respectively (p=0.074, high vs low and medium). They were associated with lower drug concentration and faster drug clearance.

Discussion: Our findings provide preliminary adalimumab thresholds that may be targeted in HS. They suggest that anti-drug antibodies contribute to poor response, and HS patients may need higher adalimumab levels than those established for inflammatory bowel disease.

Table 1: Patient characteristics, disease severity, and therapeutic drug monitoring based on response to adalimumab

	Low response (<50%)	Medium response (50-75%)	High response (>75%)
n	7	13	10
Patient characteristics			
Age (years)	38	40	44
Female, n (%)	4 (57%)	11 (85%)	4 (40%)
Male, n (%)	3 (42%)	2 (15%)	6 (60%)
Current smoker, n (%)	1 (14%)	1 (8%)	5 (50%)
Weight (kg)	93	97	95
BMI	31	34	31
Hurley Stage			
I	0%	0%	30%
II	57%	85%	40%
III	43%	8%	30%
Predominant phenotype			
Folliculonodular	14%	31%	50%
Comedonal	0%	0%	10%
Infiltrating	43%	62%	30%
Abscess	43%	8%	10%
Adalimumab weekly dosage			
40 mg	29%	62%	50%
80 mg	57%	31%	50%
Other	14%	8%	0%
Average dose (mg/week)	77	51	60
Assessment of severity			
IHS4 (mild 0-3, moderate 4-10, severe 11+)	26.1	4.8	1.5
HS-PGA score	3.9	2.5	2.1
DLQI (0-30)	16.5	8.0	5.8
hsCRP	37.7	5.9	3.8
Adalimumab concentration (ug/mL)	13.5±4.5	15.6±2.7	23.9±3.8
Concentration without antibodies	16.1±7.3	17.7±3.1	23.9±3.8
Concentration with antibodies	10.2±5.1	8.6±4.6	n/a
Percentage with antibodies	33%	23%	0%
Average antibody level (U/mL)	22.2	4.0	0.0
Adalimumab clearance (L/day)	0.70±0.11	0.58±0.12	0.41±0.05
Clearance without antibodies	0.72±0.16	0.474±0.13	0.41±0.05
Clearance with antibodies	0.69±0.17	0.97±0.11	n/a

Table 2 legend: BMI = body mass index, DLQI = Dermatology Life Quality Index, hsCRP = high sensitivity C-reactive protein, HS-PGA = hidradenitis suppurativa Physician Global Assessment, IHS4 = International Hidradenitis Suppurativa Severity Score, mg = milligrams, mL = milliliters, n = number, U = units, ug= micrograms.

Saturday, October 14 · 2:55 p.m. – 3:05 p.m.

3000160 - Baseline Patient Characteristics Associated with Achieving HiSCR with Povorcitinib: Phase 2 Secondary Analysis

Joslyn Kirby[1], Martin Okun[2], Afsaneh Alavi[3], Falk Bechara[4], Christos Zouboulis[5], Susan Poelman[6], Jacek Szepietowski[7], Kurt Brown[8], Leandro Santos[8], Tara Jackson[8], Zhenyi Xue[8], Alexandra Kimball[9], Martina Porter[9]

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Background: In a phase 2 study (NCT04476043), treatment with any dose of the oral Janus kinase (JAK)1-selective inhibitor povorcitinib was associated with a numerically higher percentage of patients achieving Hidradenitis Suppurativa Clinical Response (HiSCR) vs placebo at Wk16.

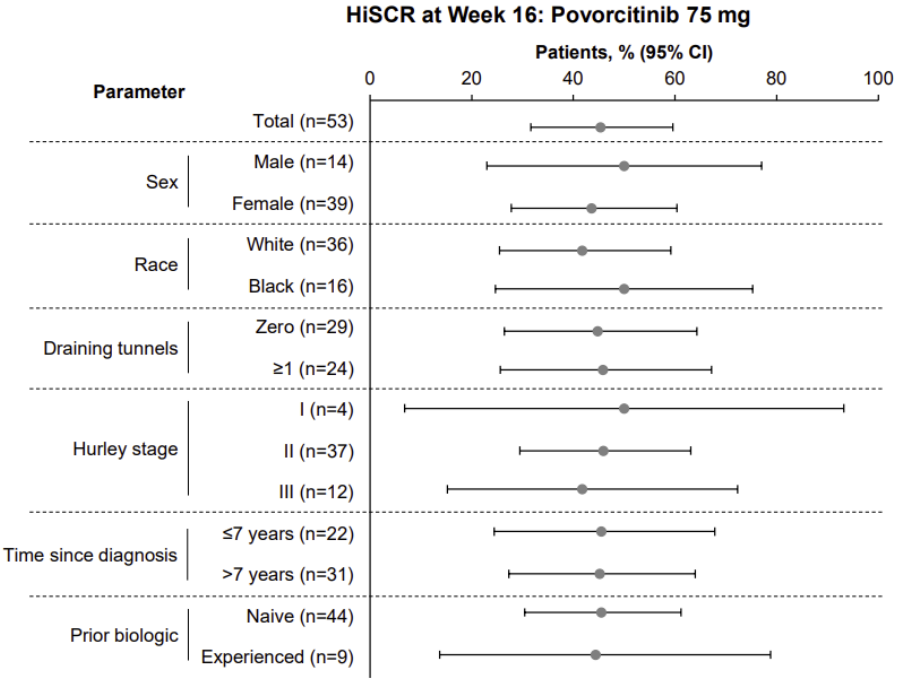
Objective: Assess povorcitinib efficacy (per HiSCR) by baseline demographic and disease characteristics.

Method: Adults (N=209; Hurley stage I–III) were randomized to once-daily oral povorcitinib (15mg, n=52; 45mg, n=52; 75mg, n=53) or placebo (n=52) for 16 wk. Comparisons for HiSCR (key secondary endpoint) at Wk16 (intent-to-treat population) were tested using logistic regression, which included treatment group and stratification factors (Hurley stage, geographic region). Missing values were considered nonresponders.

Results: At Wk16, a numerically higher percentage of patients in all 3 povorcitinib groups (15mg, 48.1%; 45mg, 44.2%; 75mg, 45.3%) achieved HiSCR vs placebo (28.8%; 15mg: odds ratio [OR], 2.3 [95% CI 1.0–5.3] P<0.05; 45mg: OR, 2.0 [95% CI 0.9–4.6] P=0.0998; 75mg: OR, 2.1 [95% CI 0.9–4.7] P=0.0829).
In the povorcitinib 75-mg group, HiSCR was achieved by a comparable proportion of patients across subgroups (approximately 40%–50%; Figure). For povorcitinib 45mg, patient groups with a longer time since diagnosis, prior biologic exposure, and Hurley stage II/III subgroups had numerically lower HiSCR responses.

Discussion: A similar proportion of patients receiving povorcitinib 45 or 75mg achieved HiSCR regardless of differences in demographic or disease characteristics, reinforcing the effectiveness of JAK1 inhibition with povorcitinib as a potential systemic hidradenitis suppurativa therapy across populations. Additional analyses in larger patient populations are needed for confirmation.

Figure. HiSCR at Week 16 Among Patients Receiving Povorcitinib 75 mg by Select Baseline Demographic and Disease Characteristics



Saturday, October 14 · 3:55 p.m. - 4:05 p.m.

3000051 – Inpatient Management of Hidradenitis Suppurativa: A Delphi Consensus Study

McKenzie Needham[1], Rita Pichardo[1], Afsaneh Alavi[2], Aileen Chang[3], Steven Daveluy[4], Katherine DeNiro[5], Anna Dewan[6], Milad Eshaq[7], Lindy Fox[3], Jennifer Hsiao[8], Benjamin Kaffenberger[9], Joslyn Kirby[10], Daniela Kroshinsky[11], Alex Ortega-Loayza[12], Robert Micheletti[13], Jennifer Manusco[7], Arash Mostaghami[14], Caroline Nelson[15], Helena Pasieka[16], Martina Porter[17], Barry Resnik[18], Christopher Sayed[19], Vivian Shi[20], Bridget Shields[21], Lindsay Strowd[1]

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Background: Currently no published guidelines for inpatient management of hidradenitis suppurativa (HS) exist. Also, inpatient medical services may not be familiar enough with this disease to understand how to manage severe HS and/or HS flares requiring inpatient care. It would be beneficial

to the inpatient medical community to establish consensus recommendations on inpatient care of patients with HS.

Objective: To reach consensus among inpatient dermatologists and HS experts on appropriate treatment considerations for HS patients during inpatient hospitalization.

Method: Between May and August 2022, a survey study was developed and distributed by WFUSM. A total of 26 dermatologists participated in the Delphi process. The process was conducted in two rounds. Participants voted on proposal statements using a 9-point scale (1= very inappropriate, 9= very appropriate). Statements were developed using current published guidelines for management of HS and supportive care guidelines for other severe inpatient dermatologic diseases. Statement categories included wound care, pain control, medical management, surgical management, infection monitoring, and hospital transitional care planning. A total of 50 statements were reviewed and voted upon. Consensus was determined using the RAND/UCLA Appropriateness Method (RAM).

Results: 31 dermatologists were invited to participate in the Delphi process. 26 dermatologists completed the first-round survey, and 24 completed the second-round survey. The majority of participants (96%) were employed by an academic medical center and had an average of ten years of experience as a dermatologist. Consensus was obtained on 26 of 50 statements in the first-round survey. Feedback on non-consensus statements were used to modify and create 14 statements in the second survey, all of which achieved consensus. Additional feedback and comments from participants were obtained and included in the manuscript.

Discussion: These 40 consensus recommendations can serve as an important resource for providers caring for inpatients with HS and represent a successful collaboration between inpatient dermatology and HS experts.

Consensus Category and Statements	Median Rating	DI
Care Team		
Management of inpatients with severe HS/HS flares require a multidisciplinary team that may include dermatology, gynecology, urology, plastic surgery, internal medicine, pain management, nutrition, nursing, psychology/psychiatry, wound care, social work, and other fields.	9	-0.3448276
Dermatologists are experts in the disease state of HS and should directly participate in the management of such patients.	9	0
Chronic conditions and comorbidities play a significant role in the morbidity of patients with HS and the need for specialized multidisciplinary care, and hospital transfers should take into account these factors.	9	-0.3448276
Patients with severe HS should be screened for symptoms of IBD. If signs or symptoms of IBD are present, gastroenterology should be consulted.	8.5	-0.5940594
Patient with severe HS should be screened for signs and symptoms of autoinflammatory disorders. If symptoms are present, rheumatology should be consulted.	7	-0.8450704
Wound Care		
Determine all affected anatomic locations and use Hurley staging system to document disease severity.	8	-0.9302326
Either dermatology or inpatient wound care teams can direct wound care for hospitalized HS patients, depending on hospital-specific availability and expertise.*	8	-0.9302326
For skin surfaces with active HS disease, these areas should be cleaned with sterile water, normal saline, or dilute chlorhexidine (0.05%) solution with dressing changes.*	7.5	-0.7142857
Local wound dressings should be chosen based on the individual wound characteristics. Absorbent dressings should be used in exudative wounds, and moist dressings used in non-exudative erosive wounds.*	9	-0.3448276
Pain Management		
Evaluation and treatment of pain is a priority in hospitalized patients.	9	0
Pain should be evaluated at least twice daily. *	8	-0.9302326
A validated pain tool should be used to assess pain in all patients at least once a day.	8.5	-0.3448276
Consult pain management to provide expert recommendation in both acute and chronic pain control.	8	-0.9302326
Procedures such as dressing changes and bathing may require additional pain control.	9	-0.3448276
Topical analgesics such as topical lidocaine should be considered in conjunction with systemic pain medications	8	-0.9302326
Genital Care		
Gynecology and/or urology should be consulted during hospitalization only if procedural interventions are planned by these services or there is other unique need.*	8	-0.7142857
Infection control		
Hand hygiene and other infection control measures should be utilized when changing dressings.	9	0
WBC count is not considered a reliable measure of true bacteremia or active infection in this patient population and should be	8	-0.3448276

considered in conjunction with other signs and symptoms of infection.*		
Patients should be screened for signs of blood stream infection, such as fever, leukocytosis, and/or hypotension. If present, two peripheral blood cultures should be obtained on admission.	8	-0.9302326
Bacterial wound cultures of HS lesions are not routinely recommended unless there are signs of surrounding cellulitis or acute infection.*	8.5	-0.3448276
Secondary cutaneous infection may be accompanied by increase in skin pain.	8	-0.9302326
Secondary cutaneous infection may be accompanied by increase in skin drainage.	8	-0.9302326
For severe HS flares, consider 24-48 hours of IV antibiotics followed by de-escalation to oral antibiotics pending clinical improvement in disease.	8	-0.8450704
Medical Management		
If patient is already on infliximab therapy, consider increasing dose up to max of 10 mg/kg.	8	-0.9302326
If patient is Hurley Stage 2 or 3 and is biologic naïve, consider expediting approval and initiation of biologic therapy based on current published treatment guidelines.*	8	-0.3448276
Consider initiating IV ertapenem therapy inpatient and continue for six weeks as a bridge therapy to outpatient HS therapies.*	7	-0.8571429
For severe flares, consider pulse-dose steroids with intravenous methylprednisolone 1 mg/kg for 3-5 days as bridge to other therapies.*	8	-0.9302326
Surgical Management		
Surgical procedures such as wide local excision of non-inflamed HS lesions should be performed in the outpatient setting over the acute inpatient setting.*	8	-0.9302326
If there is concern for perianal fistulas, consult colorectal surgery for evaluation.*	8.5	-0.3448276
Bedside I&D should be considered on actively inflamed painful abscesses.*	8	-0.9302326
Plastic surgery, general surgery, or other surgical services should be consulted for evaluation of chronically inflamed tunneling disease.*	8	-0.8301887
Nutrition		
Maintain close glycemic control.	8.5	-0.3448276
Obtain HbA1C to screen for diabetes if patient has not had test in the past 6 months.	8	-0.9302326
Consult a hospital nutritionist to assess patient's dietary intake and opportunity to improve nutritional status.	8	-0.9302326
Transitional Care		
Consult social work to procure home health services for wound care after discharge.	8.5	-0.9302326
Consult social work to screen for barriers to outpatient follow up, such as transportation resources.	8.5	-0.3448276

Coordinate multiple outpatient appointments to streamline care for patients after discharge.	9	-0.5940594
Provide outpatient dermatology follow-up within 2 weeks of discharge to avoid hospital re-admission.	9	-0.3448276
Patient needs post-discharge appointment with their PCP within two weeks. If patient does not have a PCP, they should be set up with a PCP prior to discharge.	8	-0.9302326
Verify insurance status and help enroll in government insurance if needed.	9	-0.3448276

Table 1: Delphi Consensus Guidelines for management of inpatient hidradenitis suppurativa. Statements with an asterisk (*) were from the second-round survey. Table includes median participant rating and disagreement index (DI) calculation for each statement. IBD = inflammatory bowel disease, PCP = primary care physician, WBC = white blood cell count, IV = intravenous, I&D = incision and drainage, HbA1C = Hemoglobin A1C.

Saturday, October 14 · 4:05 p.m. – 4:15 p.m.

3000100 - Bimekizumab in Moderate to Severe Hidradenitis Suppurativa: 48-Week HiSQOL Data from BE HEARD I and II

Joslyn Kirby[1], Gregor B. Jemec[2], Linnea Thorlacius[3], Amit Garg[4], Alexa B. Kimball[5], Robert Rolleri[6], Edward Muller[7], Jérémy Lambert[8], John R. Ingram[9]

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Background: The HS Quality of Life (QoL) questionnaire (HiSQOL) is a valid, reliable tool measuring HS symptoms and impacts on patients' health-related QOL (HRQoL).[1,2] Bimekizumab (BKZ) is a humanized IgG1 monoclonal antibody that inhibits interleukin (IL)-17F plus IL-17A.

Objective: Report pooled HiSQOL data to Week (Wk) 48 from two BKZ in HS phase 3 studies BE HEARD I and II (NCT04242446, NCT04242498).

Method: Patients with moderate-to-severe HS were initially randomized to BKZ (320mg every 2wks [Q2W] or every 4wks), or placebo (PBO); after Wk16, PBO-treated pts switched to BKZ Q2W. Outcomes: mean (standard error [SE]) change from baseline (CfB) in HiSQOL total and three domain scores; responders defined as ≥21-point total score reduction (marked clinically meaningful improvement). High scores indicate detrimental HRQoL impact. Data reported using multiple imputation (MI), observed case (OC), modified non-responder imputation (mNRI; participants who discontinued due to lack of efficacy/adverse events or received HS-related systemic antibiotics considered non-responders).

Results: At baseline, 1,014 patients were randomized to PBO/BKZ Q2W (n=146) or BKZ (n=868); OC mean (SD) HiSQOL total scores were 26.4 (14.1, n=144) and 25.0 (13.3, n=854). At Wk16, greater improvements in HiSQOL total score were reported for BKZ-treated (MI: mean CfB [SE]: −11.0 [0.4]) compared with PBO-treated (−5.8 [0.9]) patients. Following switch to BKZ, improvements were comparable between groups (Wk48: BKZ: −13.4 [0.5]; PBO/BKZ Q2W: −14.5 [1.2]). At Wk16, proportion of HiSQOL responders was higher in BKZ-treated patients (OC [n/N]: 33.8% [154/456]; mNRI: 32.7%) versus PBO (OC: 12.5% [10/80]; mNRI: 10.8%). At Wk48, responses were comparable between BKZ (OC: 44.8% [159/355]; mNRI: 36.0%) and PBO/BKZ Q2W (OC: 55.0% [33/60]; mNRI: 43.4%). Similar results observed across domain scores.

Discussion: BKZ treatment was associated with marked clinically meaningful improvements in HiSQOL outcomes to Wk48 in HS patients.

1. Thorlacius L. SAD. 2019;5:221–29; 2. Kirby JS. ISPOR-EU 2022. Poster:PCR224

Funding: UCB Pharma. Medical writing: Costello Medical.

Saturday, October 14 · 4:15 p.m. - 4:25 p.m.

3000037 – A Proof-Of -Concept Open-Label Clinical Trial of Spleen Tyrosine Kinase Antagonism Using Fostamatinib in Moderate-To-Severe Hidradenitis Suppurativa

Rebecca Jepsen[1], Chloe Edwards[1], Akshay Flora[2], Emily Korea[2], John Frew[3]

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Background: Hidradenitis Suppurativa is an autoinflammatory disorder of keratinization with a prominence of B cells and plasma cells. Fostamatinib is a spleen tyrosine kinase (SYK) inhibitor targeting B cells and plasma cells.

Objective: To assess the safety, tolerability and clinical response at week 4 and week 12 or Fostamatinib in moderate to severe HS.

Method: Twenty participants were administered fostamatinib 100mg BID for 4 weeks, escalating to 150mg BID thereafter until week 12. Participants were assessed for adverse events and clinical response (Hidradenitis Suppurativa Clinical Response [HiSCR], International Hidradenitis Suppurativa Severity Scoring System [HIS4], including serology and skin biopsies.

Results: All twenty participants completed the week 4 and week 12 endpoints. Fostamatinib was well tolerated in this cohort with no grade 2/3 adverse events reported. 85% achieved HiSCR at week 4 and 85% at week 12. The greatest reduction in disease activity was seen at weeks 4/5 with worsening in a proportion of patients thereafter. Significant improvements were seen in pain, itch and quality of life.

Discussion: Fostamatinib was well tolerated in this HS cohort with no serious adverse events and improvement in clinical outcomes. Targeting B cells/plasma cells may be a viable therapeutic strategy in HS and requires further exploration.

Saturday, October 14 · 4:25 p.m. – 4:35 p.m.

3000039 - Fostamatinib Significantly Reduces Serum IL-17A, IL-1A, IL-6 and IL-8 in Hidradenitis Suppurativa: Proteomic Analysis from a Phase 2 Clinical Trial.

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[1]Liverpool Hospital, Sydney, [2]Holdsworth House Medical Practice, Sydney, Australia, [3]University of New South Wales

Background: Hidradenitis Suppurativa is a disease in need of novel therapies. We recently published a Phase 2 open label proof-of-concept study using fostamatinib, a spleen tyrosine kinase (SYK)

inhibitor targeting B cells in moderate-to-severe HS. Results demonstrated good tolerability and clinical efficacy, with greater disease severity, serum CRP and serum immunoglobulins associated with greater clinical response. This study presents the results of the serum proteomic analysis of this clinical trial.

Objective: To assess the changes in the serum proteome at week 4 and week 12 compared to baseline in the twenty (20) participants enrolled in the Phase 2 fostamatinib clinical trial.

Method: 5mL of serum was collected from participants at baseline, week 4 and 12 and analysed using OLINK proteomic inflammation panel. Results were analysed using R. Comparison between groups was made using student t-test with adjustment for multiple comparison using the Benjamini-Hochberg procedure. DEPs were defined as those with absolute fold change >1.2 and P< 0.05.

Results: The baseline HS proteome was significantly different to age and BMI-matched healthy controls. Increased serum levels of IL-17C, IL-6, IL-1a and IL-13 were associated with Hurley Stage 3 disease compared to Hurley stage 2. Treatment with fostamatinib resulted in significant downregulation of serum CX3CL1, IL-12B, TNFRSF9, CCL19, CCL20 and CCL28. Pathway analysis identified significant downregulation of interleukin 17 production, interleukin 12 production, natural killer cell function and STAT signalling. Stratification by HiSCR75 responders demonstrated greater reduction in serum IL-17A, TNF, CXCL1, IL-6 and IL-8 compared to non-responders.

Discussion: Fostamatinib therapy significantly alters the serum proteome in Hidradenitis Suppurativa with reduction in serum IL-17A, TNF, CXCL1, IL-6 and IL-8 associated with high levels of clinical response. Given the mechanism of action of Fostamatinib as a B cell target, this implies new disease mechanisms linking B cell activity to IL-17A in HS which is worthy of further mechanistic exploration.

Saturday, October 14 · 4:35 p.m. - 4:45 p.m.

3000059 - Bimekizumab Impact on Pain in Moderate to Severe Hidradenitis Suppurativa: Week 16 Results from BE HEARD I and II

Lauren Orenstein[1], Vivian Shi[2], Hadar Lev-Tov[3], Errol Prens[4], Maurizio Podda[5], Hideki Fujita[6], Jérémy Lambert[7], Robert Rolleri[8], Edward Muller[9], Jacek Szepietowski[10]

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Background: Pain is the number one symptom reported by patients with hidradenitis suppurativa (HS), substantially impacting quality of life. Bimekizumab (BKZ), a humanized IgG1 monoclonal antibody, inhibits IL 17F in addition to IL-17A.

Objective: Report Week 16 Worst Skin Pain results from the pooled BE HEARD I and II phase 3 trials (NCT04242446, NCT04242498) using the HS Symptom Daily Diary (HSSDD).

Method: Patients with moderate to severe HS were randomized to BKZ (320mg every 2 weeks [Q2W] or Q4W), or placebo (PBO). Clinically meaningful response rates using the HSSDD weekly average Worst Skin Pain item (numeric rating scale scored daily: 0–10 [no pain–worst possible pain]),

defined as a 30% improvement and ≥1-point reduction, ≥3- or ≥4-point reduction, are reported using observed case (OC) and modified non-responder imputation (mNRI). HSSDD change from baseline is reported using multiple imputation (MI).

Results: 1,014 patients received BKZ Q2W (n=580), Q4W (n=288), and PBO (n=146). Baseline mean HSSDD worst skin pain was 5.47 across all included patients.

At Week 16, BKZ-treated patients had greater reductions in HSSDD Worst Skin Pain item scores than PBO: −1.89 (BKZ Q2W), −1.47 (BKZ Q4W) versus −0.69 (PBO) (Table). Greater proportions of BKZ-treated patients achieved clinically meaningful ≥3-point reductions from baseline: 38.9% (BKZ Q2W), 34.0% (BKZ Q4W) versus 11.8% (PBO). Similar trends were observed across response thresholds.

Discussion: At Week 16, although this represents a short follow-up, HS patients treated with BKZ experienced clinically meaningful improvements in HSSDD worst skin pain compared to PBO-treated patients.

Funding: UCB Pharma. Medical writing: Costello Medical.

Table. HSSDD Worst Skin Pain Item Baseline Scores, Change from Baseline, and Responder Rates at Week 16 (OC, MI, mNRI)

	PBO (n=146)	BKZ Q4W (n=288)	BKZ Q2W (n=580)
Patients with Worst Skin Pain rating at baseline, n	116	250	482
Worst Skin Pain rating at baseline, mean ± SD	5.43 ± 2.50	5.61 ± 2.54	5.41 ± 2.48
Change from baseline in Worst Skin Pain, mean ± SE	−0.69 ± 0.21	−1.47 ± 0.17	−1.89 ± 0.12
Worst Skin Pain Item Responder Rate (30%-improvement and ≥1-point reduction from baseline)[a]			
mNRI, % (95% CI)	27.1 (17.4, 36.8)	47.4 (39.9, 54.9)	55.7 (50.5, 61.0)
OC, % (n/N)	32.4 (22/68)	52.8 (76/144)	59.1 (178/301)
Worst Skin Pain Item Responder Rate (≥3-point reduction from baseline)[a]			
mNRI, % (95% CI)	13.4 (5.9, 20.9)	29.8 (25.0, 34.6)	36.4 (32.9, 39.9)
OC, % (n/N)	11.8 (8/68)	34.0 (49/144)	38.9 (117/301)
Worst Skin Pain Item Responder Rate (≥4-point reduction from baseline)[b]			
mNRI, % (95% CI)	9.7 (2.6, 16.9)	20.8 (16.3, 25.3)	26.4 (22.9, 29.9)
OC, % (n/N)	8.5 (5/59)	24.6 (31/126)	27.8 (70/252)

Randomized set. OC: Denominator represents the number of patients with **non-missing HSSDD** data at the visit, and percentages are calculated accordingly. MI: Patients who discontinued study treatment due to lack of efficacy or adverse events, or who took **systemic antibiotics as rescue medication for HS** as defined by the principal investigator, were set to missing and subsequently imputed using MI. All other missing data were also imputed using MI. mNRI: Patients who took **systemic antibiotics as rescue medication for HS** as defined by the principal investigator or who discontinued due to adverse events or lack of efficacy were treated as **non-responders** at all subsequent visits. Other missing data were imputed via MI. [a] Among study participants with a baseline HSSDD score ≥3: n=95 (PBO), n=211 (BKZ Q4W) and n=399 (BKZ Q2W); [b] Among study participants with a baseline HSSDD score ≥4: n=84 (PBO), n=179 (BKZ Q4W) and n=338 (BKZ Q2W). BKZ: bimekizumab; MI: multiple imputation; mNRI: modified non-responder imputation; HS: hidradenitis suppurativa; HSSDD: Hidradenitis Suppurativa Symptom Daily Diary; OC: observed case; PBO: placebo; Q2W: every 2 weeks; Q4W: every 4 weeks; SD: standard deviation; SE: standard error.

Sunday, October 15 · 9:35 a.m. - 9:45 a.m.

3000127 – Association between Precocious Puberty and Hidradenitis Suppurativa in Pediatric Patients

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Background: Sex hormones have been implicated in influencing disease onset and activity in hidradenitis suppurativa (HS). Exploring the relationship between disorders of sex hormones and HS may support advancing our insights in understanding pathophysiology of HS.

Objective: To assess the association between precocious puberty and HS in a sample of pediatric patients.

Method: Case-control study within a US electronic health records database between March 1, 2017 and February 29, 2020. HS cases and controls aged between 8 and 18 years were eligible for inclusion based on at least one outpatient encounter during the study period and at least 1 year of database activity prior to the study index visit. HS cases comprised a 100% sample of those having at least one ICD-9/10 diagnosis code for HS (705.83, L73.2). Control patients were drawn from a 15% random sample of patients in the database with no diagnosis code for HS at any time. History of precocious puberty was identified using ICD-9/10 code 259.1 or E30.1. Logistic regression was used to compare odds of HS in patients with versus without a history of precocious puberty while adjusting for age, sex, race, and body mass index (BMI) category based on age- and sex-specific percentiles.

Results: Among 1,605 pediatric patients with HS and 180,933 controls, a history of precocious puberty was present in 2.5% (n=40) and 1.2% (n=2,120) of patients, respectively. History of precocious puberty was associated with 2.16 (95% CI 1.57-2.96) times higher odds of HS in unadjusted analysis and 2.13 (95% CI 1.53-2.99) times higher odds after adjusting for demographics and BMI.

Discussion: Precocious puberty may be a risk factor for development of hidradenitis suppurativa in pediatric patients. Sex hormones may be implicated in the pathogenesis of the disease.

Sunday, October 15 · 9:45 a.m. – 9:55 a.m.

3000050 - Evaluating Patients with Hidradenitis Suppurativa for Disordered Eating

Amina Ziad[1], Yiwen Helen Li[2], Kristin Javaras[3], Alexandra Charrow[1]

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Background: Patients with Hidradenitis Suppurativa (HS) are often counseled to lose weight to manage their disease despite studies showing significant body image impairment in this population. Eating disorders (EDs) are underdiagnosed and undertreated in the general population and in particular, in obese and Black patients.

Objective: We sought to determine ED prevalence in HS patients given common recommendations of weight-loss among this population.

Method: Adult patients with HS were recruited in dermatology clinic and via online patient portal. Consenting patients were presented with a survey that included validated food insecurity questions and the Eating Attitudes Test-26 (EAT-26), a widely-used, validated screening tool to assess ED risk. 188 patients completed the survey. 158 participants identified as female (84%), 23% of participants identified as Black, 63% as white, and 22% as Hispanic/Latino. The average age of participants was 35.7 (SD=11.6).

Results: 17% of patients scored 20 or above on the EAT-26, indicating increased risk of disordered eating. Nearly 20% of patients reported binge eating at least 2-3 times per month, and 15.6% reported using laxatives/diet pills/diuretics to control their weight. 22.7% of participants reported sometimes or often not affording balanced meals. We found no statistically significant association between risk of ED risk and gender, age, BMI, race, or ethnicity; prevalence of ED risk was similar across these demographic groups.

Discussion: Our results suggest patients with HS have a similarly high risk of developing disordered eating when compared to the general population. We found that some patients experience significant food access barriers, which may also be associated with disordered eating. Importantly, our data

suggest disordered eating is not limited to any single patient demographic. Historically, research on EDs excluded the experiences of patients of color, presenting EDs as only affecting thin white girls. These findings highlight the need for multidisciplinary approaches to HS treatment guided by evidence-based strategies.

Table 1. Demographics of patient with Hidradenitis Suppurativa.

	Clinic Patients[1] (n = 115)	**Portal Patients[2] (n = 73)**
Sex, No. (%)		
Female	95 (82.6)	63 (86.3)
Male	17 (14.7)	8 (11.0)
Prefer not to answer	1 (0.9)	1 (1.4)
Gender, No. (%)		
Woman	93 (80.9)	60 (82.1)
Man	16 (13.9)	8 (11.0)
Non-binary	2 (1.7)	4 (5.5)
Transgender Woman	1 (0.9)	0 (0)
Prefer not to answer	2 (1.7)	0 (0)
Race, No. (%)		
White	57 (50.0)	61 (83.6)
Black/African American	36 (31.3)	7 (9.6)
Asian	5 (4.3)	1 (1.4)
Mixed	4 (3.6)	4 (5.5)
Other	10 (8.7)	
Ethnicity, No. (%)		
Hispanic or Latino	31 (27.0)	11 (15.1)
Not Hispanic or Latino	84 (73.0)	62 (84.9)
Hurley Stage, No. (%)		
I	13 (11.3)	15 (20.6)
II	57 (49.5)	23 (31.5)
III	43 (37.4)	14 (19.2)
(Missing)	2 (1.7)	21 (28.8)
Age, No. (%)		
18-29	51 (44.3)	21 (28.8)
30-39	36 (31.3)	21 (28.8)
40-49	20 (17.4)	13 (17.8)
50-59	5 (4.3)	13 (17.8)
60-69	3 (2.6)	5 (6.8)
BMI, No. (%)		
<18	1 (0.9)	0(0)
18.5-24.9	17 (14.8)	15 (20.6)
25-29.9	17 (14.8)	16 (21.9)
30-34.9	29 (25.2)	16 (21.9)
>35	51 (44.4)	26 (35.6)

Abbreviations: BMI = Body Mass Index

[1] Clinic patients refers to patients with HS approached in person after their dermatology appointment.
[2] Portal patients refers to patients with HS who were recruited via the Mass General Brigham online patient portal system.

Sunday, October 15 · 9:55 a.m. - 10:05 a.m.

3000152 – Therapeutic Drug Monitoring in Hidradenitis Suppurativa Patients with Suboptimal Treatment Response to Adalimumab

Hannah Stirton[1], Raed Alhusayen[2]

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Background: Adalimumab is a TNF-alpha inhibitor used in hidradenitis suppurativa (HS). Therapeutic drug monitoring can be used to determine if suboptimal treatment response is from subtherapeutic drug levels, including autoantibody formation, or alternative mechanisms.

Objective: To determine what proportion of HS patients with suboptimal response to adalimumab have subtherapeutic drug levels, and determine predictors of subtherapeutic drug levels.

Method: A retrospective case series of 51 and 11 patients with suboptimal response to adalimumab 40 and 80 mg weekly, respectively, was conducted at a dermatology clinic in Toronto, Ontario. Adalimumab drug levels, autoantibody status, and demographic information was collected from September 2018 to February 2023. Patients were divided into therapeutic (>10.6) and subtherapeutic (<10.6) drug categories based on serum trough level. Associations between drug level and gender, hurley stage, inflammatory comorbidity, smoking status, antibiotic and immunosuppressants use, and location of HS were also assessed.

Results: The mean serum concentration was 15.96 µg/mL (SD 11.52) in patients on adalimumab 40 mg, and 16.63 µg/mL (SD 15.24) in patients on adalimumab 80 mg. In patients on adalimumab 40 mg, 32 had therapeutic drug levels (62.7%, mean 22.26 µg/mL) and 19 had subtherapeutic levels (37.3%, mean 4.16 µg/mL). In the adalimumab 80 mg group, 7 patients had therapeutic drug levels (28.19 µg/mL) and 4 had subtherapeutic levels (mean 3.26 µg/mL). Autoantibodies were detected in 21.06% of patients with subtherapeutic drug levels on adalimumab 40 mg. There was a significant association between hurley stage and drug level (P = 0.015), with a higher proportion of patients with hurley stage 2 disease in the therapeutic group, and hurley stage 3 patients in the subtherapeutic group.

Discussion: In patients with suboptimal response to adalimumab, the majority have therapeutic drug levels. Of those with subtherapeutic levels, only a small minority have anti-adalimumab antibodies. There is an association between hurley stage and drug levels.

Sunday, October 15 · 10:05 a.m. – 10:15 a.m.

3000118 – Safety and Efficacy of Biologic Treatments in Patients with down Syndrome and Hidradenitis Suppurativa

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Background: Patients with Down syndrome (DS) have increased incidence of chronic inflammatory conditions, including hidradenitis suppurativa (HS). Individuals with DS also are at increased risk for serious infections and certain types of leukemia. Patients with HS are often treated with biologic medications, which modulate the immune system and may have an impact on disease and cancer risk.

Objective: The goal of this retrospective cohort study is to better understand safety and efficacy of biologic drugs in patients with both DS and HS.

Method: Patients with DS treated with a biologic medication for HS were pulled from the electronic medical record. Patients were identified using ICD-9 and ICD-10 codes for DS and HS in in the UNC health system. Charts were reviewed for tolerance and side effects or adverse events associated with biologic use.

Results: Seven patients were included in this study and were treated with adalimumab. One patient with concurrent psoriasis had limited clinical improvement in psoriasis disease activity so was subsequently started on secukinumab with additional benefit. All patients demonstrated clinical improvement in HS disease when treated with a biologic. One patient briefly stopped biologic use to treat latent tuberculosis. Five out of seven (71.4%) patients are currently still on biologic treatment. Table 1 summarizes patient characteristics and biologic efficacy.

Discussion: This study supports that biologics are well tolerated and effective in patients with DS and HS. However, due to small sample size and retrospective nature of this study, additional studies are needed to further demonstrate this finding.

Table 1: Subject characteristics

Average age	23
Sex	Number (%)
Male	4 (57.1%)
Female	3 (42.9%)
Race	
Black	3 (42.9%)
White	2 (28.6%)
American Indian	1 (14.3%)
Black and white	1 (14.3%)
Average treatment time	12 months
Partial efficacy with adalimumab	2 (28.6%)
Lost efficacy	1 (14.3%)
Time on treatment before decreased efficacy	22.7 months

Sunday, October 15 · 10:15 a.m. – 10:25 a.m.

3000125 - Pediatric Satisfaction after Deroofing Surgery for Hidradenitis Suppurativa

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Background: Hidradenitis suppurativa (HS) significantly impairs quality of life (QOL) with frequent skin pain and drainage. One therapeutic option is deroofing surgery in which the “roof” of the lesion is removed with the wound left to heal by secondary intention. This often results in quiescence of local disease.

Objective: Although data on adult cohorts shows high satisfaction with deroofing, we aim to investigate how the pediatric population fares.

Method: For this ongoing IRB-approved interview-based cohort study, we are recruiting participants from Ascension dermatology clinics who underwent clinic-based deroofing when they were 18 years or younger from 2015-2023. The 15-minute survey includes questions pertaining to themes such as recovery, pain, QOL, and satisfaction. Questions include a mix of Likert-based and numerical scores based on a visual analogue scale. If a participant expresses a poor experience, further information is gathered. Research investigators not involved in the participant’s deroofing surgery conduct the surveys to prevent bias.

Results: We have recruited 9 participants to date (7 females, 2 males, mean age of 16 at time of surgery). Surgical sites include chest, axillae and groin. Participants reported a mean score of worry about having a complication from the surgery (prior to surgery) of 1.6 (1= “not anxious at all” to 5= “extremely anxious”). The majority (89%, n=8) of participants reported that HS pain was much worse than pain experienced during surgery recovery. The mean pain during surgery was 2.7 (0= “no pain” to 10= “worst pain”). Most participants (78%, n=7) would recommend deroofing to another person with HS. The majority (78%, n=7) were satisfied with the procedure.

Discussion: While the data is still preliminary, there is evidence of satisfaction amongst pediatric patients who underwent a deroofing surgery for HS.

Sunday, October 15 · 10:25 a.m. - 10:35 a.m.

3000071 - Knowledge of Hidradenitis Suppurativa amongst Emergency Medicine Physicians in the United States

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Background: Hidradenitis suppurativa (HS) is often misdiagnosed, leading to a mean diagnostic delay of nearly 10 years. Many HS patients go to the emergency department for their symptoms.

Objective: This study assesses the current knowledge of HS amongst emergency medicine (EM) physicians in the United States.

Method: An anonymous, multiple-choice questionnaire was distributed to currently practicing, board-certified EM physicians across the United States via online forums. Participant experience, knowledge on diagnosis, treatment, and referrals for HS, and confidence in treating the condition were collected. The HS case presented in the questionnaire showed a photograph of an active HS lesion along with a description of a 30-year-old Black female who has had recurrent, painful, deep nodules in her groin with accompanying scarring and drainage.

Results: 142 EM physicians completed the questionnaire. Overall, 64.1% (91/142) of participants accurately diagnosed the patient in the case with HS. Regarding treatment of HS flares, oral antibiotic was most reported (61.3%, 87/142), followed by pain management (59.2%, 84/142), incision and drainage (47.9%, 68/142), warm compresses (43.7%, 62/142), antiseptic washes (27.5%, 39/142), topical antibiotics (16.9%, 24/142), and intralesional steroids (2.8%, 4/142). Trimethoprim-sulfamethoxazole was the most reported oral antibiotic (46.0%, 40/87), followed by clindamycin (21.8%, 19/87) and doxycycline (18.4%, 16/87). Topical antibiotics reported were clindamycin (54.2%,

13/24) and mupirocin (45.8%, 11/24). Many participants reported not being comfortable diagnosing (45.8%, 65/142) or treating HS flares (34.5%, 49/142). Regarding the main specialty that cares for HS, dermatology (48.6%, 69/142) and general/plastic surgery (39.4%, 56/142) were mainly selected. Many respondents (52.8%, 75/142) reported that their current knowledge of HS is from self-directed learning.

Discussion: Misconceptions regarding first-line antibiotics, the use of intralesional steroids, and the primary provider for HS are prevalent. Further education in EM residency programs and continuing education meetings may improve EM physicians' ability to diagnose, treat, and appropriately refer patients with suspected HS.

Poster Presentations

SHSA 2023

3000041 – Bimekizumab in Moderate to Severe Hidradenitis Suppurativa: 48-Week Efficacy in US Patients from BE HEARD I and II

Alice Gottlieb[1], Tiffany Mayo[2], Christopher Sayed[3], Joslyn Kirby[4], Amit Garg[5], Tae Oh[6], Braulio Gomez[6], Pratiksha Dokhe[7], Robert Rolleri[8], Leah Davis[8], Steven Daveluy[9], Christopher Sayed[10]

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Background: Hidradenitis suppurativa (HS) has an estimated prevalence of ~0.1% in the USA.[1] Understanding treatment responses in US patients can help to inform treatment decisions in the US healthcare setting.

Objective: Report pooled efficacy in US patients with moderate to severe HS receiving bimekizumab (BKZ) in the BE HEARD I and II phase 3 studies (NCT04242446, NCT04242498).

Method: Patients were randomized 2:2:2:1 (initial/maintenance) to BKZ 320mg every 2 weeks (wks) (Q2W)/Q2W, Q2W/Q4W, Q4W/Q4W, or placebo (PBO)/BKZ Q2W. HS Clinical Response 50%/75%/90% (HiSCR50/75/90) and minimal clinically important difference (MCID) in Dermatology Life Quality Index (DLQI; reduction ≥4) are reported using observed case (OC) analyses and modified non-responder imputation (mNRI).

Results: Of 1,014 total patients, 319 were in the USA and received BKZ Q2W/Q2W (n=90), BKZ Q2W/Q4W (n=87), BKZ Q4W/Q4W (n=100) or PBO/BKZ Q2W (n=42). Mean age: 36.2 years; female: 76.8%; average BMI: 37.0; mean disease duration: 9.3 years; Hurley stage 3: 45.1%.

At Wk16, HiSCR50 achievement was higher with BKZ (44.6–67.0%) versus PBO (35.1%). BKZ responses increased to Wk48 (64.2–82.5%), and improved in PBO/BKZ Q2W (60.0%). Similar findings were seen for HiSCR75 and HiSCR90 (Table). More patients achieved MCID in DLQI at Wk16 with BKZ (50.8–70.5%) versus PBO (35.5%), with BKZ responses maintained to Wk48 (Table).

Discussion: In this US subpopulation, BKZ-treated patients experienced improvements in HiSCR50 and the more stringent HiSCR75/90 versus PBO, with responses maintained to Wk48. Quality of life improvements with BKZ were also maintained to Wk48.

1. Garg A. JAMA Dermatol 2017;153:760–64.

Funding: UCB Pharma. Medical writing: Costello Medical.

Table. US patients achieving HiSCR50/75/90 and MCID in DLQI total score at Week 16 and Week 48

	PBO/BKZ Q2W (n=42)		BKZ Q4W/Q4W (n=100)		BKZ Q2W/Q4W (n=87)		BKZ Q2W/Q2W (n=90)	
	Week 16	Week 48	Week 16	Week 48	Week 16	Week 48	Week 16	Week 48
HiSCR50								
mNRI, % (95% CI)	31.4 (16.9, 45.8)	46.2 (30.1, 62.2)	62.6 (55.5, 69.6)	59.3 (52.0, 66.5)	42.0 (35.8, 48.1)	54.0 (46.0, 62.0)	55.4 (49.0, 61.8)	52.1 (44.1, 60.2)
OC, % (n/N)	35.1 (13/37)	60.0 (18/30)	67.0 (59/88)	82.5 (52/63)	44.6 (33/74)	72.1 (44/61)	58.1 (43/74)	64.2 (34/53)
HiSCR75								
mNRI, % (95% CI)	13.6 (2.8, 24.4)	37.2 (21.4, 53.0)	38.0 (31.0, 45.1)	47.8 (40.3, 55.3)	30.6 (24.9, 36.4)	34.2 (26.5, 41.8)	36.8 (30.7, 42.9)	40.7 (32.3, 49.0)
OC, % (n/N)	16.2 (6/37)	46.7 (14/30)	40.9 (36/88)	68.3 (43/63)	32.4 (24/74)	44.3 (27/61)	37.8 (28/74)	50.9 (27/53)
HiSCR90								
mNRI, %, 95% CI	5.7 (0.0, 13.2)	24.9 (10.8, 39.0)	22.9 (16.8, 29.1)	34.1 (26.9, 41.3)	18.3 (13.4, 23.2)	25.9 (18.7, 33.0)	23.1 (17.8, 28.4)	25.9 (18.4, 33.4)
OC, % (n/N)	8.1 (3/37)	30.0 (9/30)	25.0 (22/88)	47.6 (30/63)	18.9 (14/74)	31.1 (19/61)	23.0 (17/74)	32.1 (17/53)
MCID in DLQI total score[a]								
mNRI, % (95% CI)	30.4 (14.8, 46.0)	48.9 (31.7, 66.0)	63.0 (55.6, 70.4)	56.1 (48.3, 63.9)	47.9 (41.3, 54.6)	43.4 (35.3, 51.6)	59.5 (53.2, 65.9)	57.9 (49.8, 66.1)
OC, % (n/N)	35.5 (11/31)	60.0 (15/25)	70.5 (55/78)	71.9 (41/57)	50.8 (33/65)	53.7 (29/54)	64.7 (44/68)	78.3 (36/46)

Randomized set. [a] DLQI reported in: PBO/BKZ Q2W (n=36), BKZ Q4W/Q4W (n=87), BKZ Q2W/Q4W (n=76), BKZ Q2W/Q2W (n=81). OC: denominator represents number of patients with a non-missing lesion count assessment/DLQI total score in the given week, and percentages are calculated accordingly. mNRI: patients who took systemic antibiotics as rescue medication for HS as defined by the principal investigator or who discontinued due to adverse events or lack of efficacy were treated as non-responders at all subsequent visits; other missing data were imputed via multiple imputation. HiSCR50/75/90: ≥50/75/90% reduction from baseline in the total abscess and inflammatory nodule count, with no increase from baseline in abscess or draining tunnel count; DLQI MCID: ≥4-point reduction from baseline in DLQI total score in patients with baseline DLQI ≥4. BKZ: bimekizumab; CI: confidence interval; DLQI: Dermatology Life Quality Index; HiSCR: Hidradenitis Suppurativa Clinical Response; HS: hidradenitis suppurativa; MCID: minimal clinically important difference; mNRI: modified non-responder imputation; OC: observed case; PBO: placebo; Q2W: every 2 weeks; Q4W: every 4 weeks.

3000042 – Understanding Hurley Stage III Hidradenitis Suppurativa Patients' Experiences with Pain: A Cross-Sectional Analysis

Leah Johnston[1], Elaine Dupuis[1], Lauren Lam[2], Susan Poelman[1]

[1]University of Calgary, [2]University of Alberta

Background: More than 90% of patients with hidradenitis suppurativa (HS) report that pain interferes with their quality of life (QoL) and pain may have a larger impact on QoL than disease severity alone.

Objective: The purpose of this study was to understand the impact of pain on the daily lives of patients with Hurley stage III HS.

Method: This was a single-center, prospective cross-sectional study that was conducted at Beacon Dermatology in Calgary, AB. Patients ≥ 18 years old with Hurley stage III HS in at least one area of the body were invited to participate. The study consisted of survey questions on patients' demographic information, past medical histories, HS-related pain histories, and previous therapies for pain management. Additionally, patients completed a series of standardized rating scales on their pain and overall QoL.

Results: Of the 10 patients that participated in the study, 90% expressed a desire for more counselling on pain management options. To manage their pain, 80% routinely used over-the-counter pain medications and 70% used complementary and alternative medicines. Patients' efficacy ratings of HS treatments in controlling their pain revealed that topical treatments provided minimal or no relief, while surgical interventions had the highest efficacy for reducing pain. Patients' average worst pain over the preceding 24 hours was 6.3 +/- 2.5 (2-9) on the Numerical Rating Scale for pain and the mean Dermatology Life Quality Index score was 19.5 +/- 8.2 (5-29).

Discussion: Patients with Hurley stage III HS report high levels of daily pain and QoL impairment and many individuals use over-the-counter treatments and complementary and alternative medicines to manage their pain. Counselling on pain management options is recommended, especially in patients with severe HS. Strong interdisciplinary collaboration between primary care providers, dermatologists,

and chronic pain specialists is essential to address the unmet need for pain management in the HS patient population.

3000047 - Exploring Hidradenitis Suppurativa Discourse: A Comparative Analysis of Online Support Communities

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Background: As hidradenitis suppurativa (HS) patients navigate the challenges posed by their chronic condition, they often turn to social media platforms for support and medical guidance. Understanding the nature of social media interactions in HS-related support groups is crucial for gaining insights into the concerns and perspectives of patients.

Objective: This study aims to analyze the types of posts generated and the viewpoints expressed by HS patients within HS-related support groups on Reddit and Facebook.

Method: A retrospective analysis was conducted on 200 posts retrieved from HS social support groups on Reddit and Facebook, spanning the period from December 2022 to February 2022. After excluding duplicates and posts not aligned with the identified themes, the resultant sample consisted of the total relevant recent posts (n = 186) on both platforms.

Results: A total of 186 posts from support groups on Reddit and Facebook were analyzed for patients with HS. The identified content themes, listed in order of frequency across both platforms, included inquiries about symptoms (n=71), followed by personal experiences (n=60), pharmacology advice (n=32), inquiries on management with natural therapeutics (n=20), and advice on surgical options (n=3).

Discussion: This cross-sectional analysis provides valuable insights into the concerns and perspectives of HS patients within the context of social support groups on Reddit and Facebook. Dermatologists can leverage this information to identify the most pertinent issues for patients with HS and develop targeted interventions that aim to mitigate misperceptions, increase awareness, and provide accurate education on crucial aspects of HS diagnosis. By addressing these concerns, dermatologists can improve the overall care and support provided to HS patients.

3000054 - Hidradenitis Suppurativa in Children and adolescents: An Update on Treatment Options

Nicholas Chiang[1], Cathryn Sibbald[2], Rebecca Levy[2], Irene Lara-Corrales[2]

[1]University of Toronto, [2]The Hospital for Sick Children (SickKids)

Background: Hidradenitis suppurativa (HS) is a chronic, inflammatory skin condition that manifests as painful, inflamed nodules and abscesses in the axillary, groin, perineal, and inframammary regions. The associated pain and disfigurement contribute to its profound negative impact on psychosocial spheres and overall quality of life. Although HS classically manifests in young adulthood, HS affects children and adolescents as well. Despite this, there are limited pediatric data on treatment, necessitating a review of the currently available evidence for the treatment option for children with HS.

Objective: The goals of this review are to: (1) review the efficacy of different pharmacological treatment modalities in children with HS, and (2) review the safety and monitoring considerations of the different treatment options in children with HS.

Method: The literature search for this narrative review consisted of four key steps: (1) identify keywords; (2) conduct search; (3) review abstract and articles; (4) document results. The key concepts for our search were “Hidradenitis suppurativa”, “pediatrics” and “treatment”. Where this

search yielded no results for the treatment of pediatric HS, the search was expanded to include adults as needed.

Results: There exist several pharmacological modalities in the treatment of children with HS including general recommendations for all patients, topical therapies, systemic therapies, and biologics.

Discussion: This review outlined the treatment options for children with HS and described the role of each treatment depending on patient comorbidities, patient preferences, and disease severity. The evidence in this population is significantly limited compared to adults, which can make treatment decisions more challenging. The current practice of extrapolation of efficacy from adult data and of safety data from the treatment of other pediatric conditions is not appropriate; further advocacy is necessary to explore the efficacy, safety, and monitoring of these treatments specifically in the treatment of pediatric HS.

3000058 - Spesolimab for Hidradenitis Suppurativa: A Proof-of-Concept Study

Afsaneh Alavi[1], Errol Prens[2], Alexa B. Kimball[3], James G. Krueger[4], Sutirtha Mukhopadhyay[5], Hui Wang[6], Nathalie B. Ivanoff[5], Ana C. Hernandez Daly[5], Christos C. Zouboulis[7]

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Background: Hidradenitis suppurativa (HS) is a chronic, recurrent inflammatory disorder characterized by painful nodules (N), abscesses (A) and draining tunnels (dT) primarily affecting intertriginous areas. There is a need for effective targeted therapies for HS.

Objective: This Phase IIa proof-of-clinical-concept study (NCT04762277) explored the effect of spesolimab, an anti-interleukin-36 receptor monoclonal antibody, in patients with moderate-to-severe HS.

Method: Patients (N=52) were randomized (2:1) to spesolimab or placebo, with intravenous dosing once every week for three weeks, then subcutaneous dosing once every two weeks for 12 weeks. No formal statistical tests were performed.

Results: Mean changes at Week 12 in dT; A; and total A, N, and dT (ANdT) counts were −1.30, −0.53, and −4.87 in the spesolimab arm, and 1.07, 3.07, and −0.86 in the placebo arm, respectively. Mean changes in N count were similar between spesolimab (−3.00) and placebo (−5.00) arms. Of patients with ≥1 dT at baseline, a greater proportion had a decrease in dT count at Week 12 in the spesolimab (16/24, 66.7%) than the placebo (5/13, 38.5%) arm. Least squares mean changes from baseline in total AN count at Week 12 were −38.8% and −34.7% in the spesolimab and placebo arms, respectively, which may have been affected by higher baseline AN and N counts in the placebo vs spesolimab arm. Safety was similar to previous trials in other diseases; 77.8% and 87.5% of patients reported ≥1 adverse event (AE) in the spesolimab and placebo arms, respectively. One patient (6.3%) receiving placebo reported a serious AE. No deaths were reported.

Discussion: These results support the development of spesolimab in HS.

3000061 - Draining Skin Ulcers that I Can't see: The Enigmatic Bond of Hidradenitis Suppurativa with Peripheral Ulcerative Sclero-Keratitis!

Indira Acharya[1]

[1]Medstar Union Memorial Hospital

Background: The co-occurrence of inflammatory eye disease and Hidradenitis suppurivata (HS) is acknowledged but uncommon.

Objective: Physicians need to be knowledgeable about the connection between HS and inflammatory eye disease.

Method: Observation

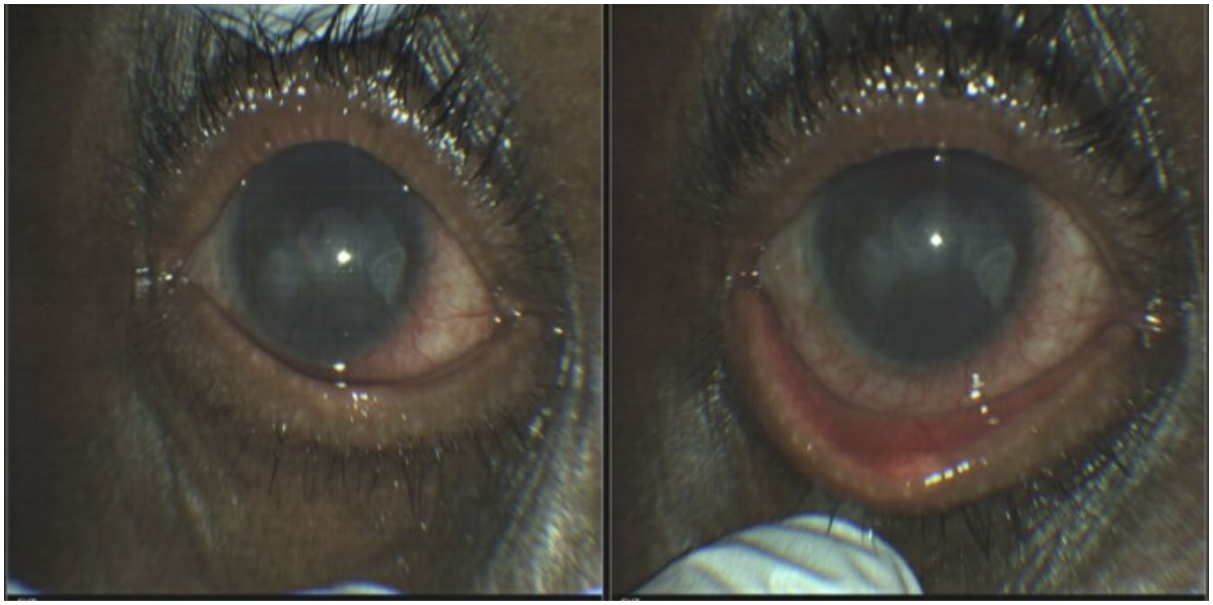
Results: Resolution of ophthalmologic symptoms associated with HS

Discussion: A 54-year-old man came to the emergency department due to a week-long increase in bilateral eye pain and blurred vision. Medical history includes a 20-year history of hidradenitis suppurativa with multiple past incisions and drainage, left eye corneal ulceration and right eye corneal perforation.

Physical examination revealed actively discharging hyperkeratotic nodules and draining tracts in the right groin. Ophthalmology evaluation revealed significantly reduced visual acuity in both eyes, with the left eye being worse, bilateral conjunctival injection and peripheral ulceration in right eye. Initial laboratory diagnostic showed elevated acute phase reactants with negative infectious workup.

Initial treatment included erythromycin eye ointment, Ibuprofen and valacyclovir.For HS, he was started on oral doxycycline, metformin, and zinc sulfate Lotion. Patient's eye redness and vision were poorly controlled with current medications and he still experienced excessive discharge from HS lesions. Later, after lab results, Valacyclovir was discontinued, and prednisone eyedrop was started due to an unlikely infectious etiology.

Patient's redness in both eyes and vision slightly improved on current medications. But he still had marked eye pain along with excessive discharge from his HS lesions. Opthalmology re-evaluation showed slight improvement of vision in bilateral eyes along with reduction in conjunctival injection. After ruling out all infectious etiology and possible other rheumatological disorders his bilateral involvement of eye was thought to be due to ongoing autoimmune process potentially related to underlying, poorly controlled HS. He was started on tapering dose of oral Prednisone for four weeks with dose reduction by 10 mg every week. On the third day of oral steroid patient's vision was clear with complete resolution of conjunctival injection.



3000062 - Exploring the Discrepancy: Comparing Patient-Reported Maximum and Average Pain Scores in Hidradenitis Suppurativa

Yiwen Li[1], John Ingram[2], Lauren Orenstein[3]

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Background: Pain is the most impactful and burdensome symptom of hidradenitis suppurativa (HS) and significantly affects patients' quality of life.

Objective: Compare patient-reported maximum pain and average pain in the past 7 days among HS patients.

Method: This is a retrospective cross-sectional study of 257 adults with HS who received care in an HS Specialty Clinic from January 2019 to August 2021. Patients rated their average pain and maximum pain severity in the past 7 days measured on a numerical rating scale (NRS) 0-10. The absolute difference between the patient-reported average and maximum pain was calculated for each patient and paired t-test was performed to determine statistical differences. Multivariable linear regression was used to assess the correlation between the average versus maximum pain score with Skindex-16 quality of life (QoL) score.

Results: The mean average pain score was 4.91 (95% CI: 2.72, 5.21), while the mean maximum pain score was 5.32 (95% CI: 4.23, 6.70). The mean absolute difference between the maximum and average pain scores was 0.83 (95% CI: 0.74, 0.92). The paired t-test showed a statistically significant difference between the average and maximum pain scores ($p<0.0001$). The association between Skindex-16 QoL and average pain was not significantly different from Skindex-16 QoL correlation with maximum pain severity ($p=0.52$).

Discussion: This study highlights a small but statistically significant difference in HS patients' maximum and average 7-day pain severities. Both maximum and average 7-day scores correlated with skin-related QoL, suggesting equipoise as outcome measures for clinical HS studies. Future input from patient representatives will help to determine which option to use for pain measurement if employing a 7-day recall window.

3000065 - Association of Serum IL-19 Level and Disease Severity in Patients with Hidradenitis Suppurativa

Gretchen Roth[1], Kimberly Katz[1], Robert Konrad[2], Kenneth Gordon[1]

[1]Medical College of Wisconsin, [2]Eli Lilly and Company

Background: Interleukin (IL)-19 has been found to attenuate the proinflammatory actions of IL-17A on keratinocytes.1 Serum IL-19 levels are strongly correlated with disease severity in psoriasis, and IL-19 has been proposed as potential serum biomarker in chronic inflammatory skin conditions.1,2 Elevated levels of IL-19 have been identified in affected skin of individuals with hidradenitis suppurativa (HS).3 Limited data exist regarding serum IL-19 levels in patients with HS.4

Identifying a serum marker of disease activity in HS has important implications as the currently utilized measures are limited in detecting response to treatment. An upper limit of normal of 21 pg/mL (robust 95th percentile) has been reported for serum IL-19 in healthy controls.4

Objective: To measure serum IL-19 levels in patients with HS and evaluate for an association between serum IL-19 and clinical measures of HS severity.

Method: In this single institution cross-sectional study, IL-19 serum levels were measured in 30 patients with HS. Hurley stage, Hidradenitis Suppurativa-Physician Global Assessment (HS-PGA), and treatment regimen at the time of serum measurement were collected. Statistical analyses were performed using R version 4.1.3. Descriptive statistics were calculated to examine the distributions of all the variables. Linear regression models were fitted to investigate the association between disease severity (by Hurley stage and HS-PGA) and IL-19.

Results: Mean serum IL-19 level for each patient in this cohort ranged from 9.4 – 147.8 pg/mL. IL-19 level was significantly associated with disease severity as measured by HS-PGA. ($p = 0.0019$). One unit (1 pg/ml) increase in serum IL-19 concentration would increase the HS- PGA score by 0.0195 unit. IL-19 levels were not significantly associated with disease severity measured by Hurley Stage.

Discussion: Certain, but not all, patients with HS have elevated levels of serum IL-19. IL-19 may be a biomarker of ongoing disease activity in select patients with hidradenitis suppurativa.

3000067 - Anti-PD-1 (Nivolumab) Induced Hidradenitis Suppurativa: A Case Report

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Background: Hidradenitis suppurativa (HS) is a chronic, inflammatory skin disorder characterized by recurrent painful nodules, abscesses, and sinus tract formation. Immune dysregulation, specifically involving elevated IL-17 and neutrophil-dominated inflammation, has been implicated in HS pathogenesis.(1) While immune checkpoint inhibitors (ICIs) have emerged as a dominant therapy for various advanced malignancies, their use can lead to immune-related adverse events (irAEs). Notably, anti-programmed cell death protein-1 (anti-PD-1) therapy has been associated with T cell-mediated adverse events, which may involve IL-17 signaling.(2,3)

Objective: To present a case of anti-PD-1-induced HS and highlight the importance of recognizing this irAE in patients undergoing ICI therapy.

Method: We reviewed the records of a 44 year-old African American male with metastatic renal cell cancer and anti-PD-1-induced HS including the patient's HS progression, treatment response, and pertinent biopsy results. The patient was monitored at an outpatient academic dermatology clinic.

Results: A 44 year-old African American male with metastatic renal cell cancer presented with a gluteal abscess, subcutaneous nodules, and sinus tracts in the bilateral inguinal folds after three months of Nivolumab (anti-PD-1) therapy initiation. Given his clinical history and biopsy results, his presentation was most consistent with anti-PD-1-induced HS. The patient was inadequately controlled on traditional HS topical and systemic treatment therapies. Upon stabilization of his malignancy, Nivolumab immunotherapy was discontinued and his HS gradually improved, with complete resolution of all active lesions nine months after discontinuation.

Discussion: The observed latency period between the initiation of Nivolumab therapy and onset of HS symptoms, along with the subsequent improvement after discontinuation, supports the diagnosis of anti-PD-1-induced HS. While anti-PD-1-induced HS is rare,(3,4) it is an important irAE that should be considered in patients receiving ICI therapy.

3000069 - Hidradenitis Suppurativa and Renal Disease in African American Patients

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Background: Hidradenitis suppurativa (HS) is a chronic inflammatory skin disorder characterized by recurrent painful nodules, abscesses, and sinus tracts. HS disproportionately affects African American patients and recent studies suggest a significant association between HS and various comorbidities such as renal disease. Most studies have also shown that HS affects women three times more than men. The majority of previous studies are limited in both size and diversity so it is unclear if the prevalence of renal disease with HS is affected by race and sex.

Objective: Our aim is to investigate the relationship between HS and renal comorbidities in black and white patients.

Method: We performed a cross-sectional study of patients with HS at Henry Ford Health (HFH) in Detroit over a 27-year period, from 1995 to 2022.

Results: We examined 13,130 patients with HS, with 54.1% identifying as African American (AA) and 36.3% identifying as European American (EA). 73.5% of our cohort identified as female and 26.5% identified as male. After adjusting for age of first diagnosis and sex, AA patients with HS were more likely to have renal disease than EA patients with HS (OR=2.61; p<.001). Male patients with HS had increased risk of renal disease (OR=3.05; <=.001) compared to female patients with HS. After adjusting for age of diagnosis and race, males with HS were more likely to have renal disease (OR=2.17; p<.001).

Discussion: Our study includes a larger and more diverse cohort than previous epidemiology studies, which allows us to identify differences in risk factors and comorbid conditions among sexes and racial subgroups. Additional studies are required to better understand contributions of race and sex to HS presentation, diagnosis, and progression.

3000070 - Impact of Secukinumab on Hidradenitis Suppurativa-Related Work Productivity and Activity Impairment

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Background: Hidradenitis suppurativa (HS) provokes a significant decrease in work ability and productivity. However, despite previously demonstrating sustained efficacy in patients with moderate-to-severe HS, the impact of secukinumab on work productivity and activity impairment (WPAI) in HS is unknown.

Objective: To investigate the effect of secukinumab on WPAI in patients with moderate to severe HS.

Method: Patients with moderate-to-severe HS from the SUNSHINE (NCT03713619) and SUNRISE (NCT03713632) phase 3 trials were randomised to receive secukinumab 300 mg every 2 (SECQ2W) or 4 weeks (SECQ4W), or placebo (PBO) between weeks 0–16. Patients receiving PBO were switched to SECQ2W or SECQ4W while patients receiving SECQ2W or SECQ4W remained on the same treatment from weeks 16–52. WPAI was assessed at six time points using the WPAI-specific health problem (WPAI-SHP) questionnaire. Questions related to work productivity loss, activity impairment, presenteeism, and absenteeism. Further, patients' HS clinical response (HiSCR) status at weeks 16 and 52 were assessed in a correlative analysis with WPAI parameters.

Results: 972 patients completed the WPAI-SHP questionnaire at baseline. At week 16, both secukinumab treatment arms had improved work productivity loss, activity impairment, presenteeism, and absenteeism versus PBO; improvements were sustained with a trend for improvement to week 52 (Figure 1). Patients in the SECQ2W and SECQ4W arms who achieved HiSCR at weeks 16 and 52 had higher WPAI improvements compared with patients not achieving HiSCR; however, improvements were still observed in patients not achieving HiSCR.

Discussion: Secukinumab treatment demonstrated a sustained WPAI improvement in patients with moderate-to-severe HS.

3000073 - Hidradenitis Suppurativa Patient Referrals to a Canadian Community Dermatology practice: A Retrospective Chart Review

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[1]*University of Calgary*

Background: Delayed diagnosis of hidradenitis suppurativa (HS) has been correlated with disease progression, higher rates of systemic inflammatory comorbidities, and impairment in patients' professional and social lives. Awareness of HS amongst non-dermatology healthcare providers is essential to facilitate prompt diagnosis, treatment, and referral to dermatology for further management.

Objective: The purpose of this study was to analyze patterns of recent referrals of HS patients to a Canadian community dermatology practice.

Method: This study was a single-centre, retrospective chart review that was completed at Beacon Dermatology, a HS Center of Excellence in Calgary, AB. Patients who were referred for suspicion of HS and/or were diagnosed with HS by a dermatologist between May 2020 and May 2023 were included. Patient demographics, suspected pre-referral diagnoses, and interim management plans that were initiated by the referring provider were extracted from referral letters and dermatology clinic notes.

Results: A total of 451 patient charts with suspected and/or confirmed HS were retrieved from the clinic database. Most patients (92%) were referred by a primary care provider (Table 1). The median wait time to visit a dermatologist was 9.1 weeks and the average duration of HS symptoms was 7.3 years. HS was suspected by the referring provider and confirmed by a dermatologist in 286 cases (63%). Preliminary management was initiated in 60% (n=129/216) of mild cases and 66% (n=124/188) of moderate-to-severe cases (Figure 1a). Topical antibiotics (n=107/404, 26%) were the most frequently initiated therapies (Figure 1b). Oral antibiotics were prescribed for 1 month or longer

in 8% of patients (n=33/404). Incision and drainage was the most frequently performed procedural intervention (n=48/404, 12%).

Discussion: These results highlight the prolonged time to diagnosis of HS, frequent misdiagnoses, and low implementation rates for evidence-based treatment options in preliminary management plans. Ultimately, this study demonstrates the need for increased interdisciplinary education on HS management in Canada.

Figure 1a. Rates of preliminary management initiation in patients that were subsequently diagnosed with hidradenitis suppurativa (HS) by a dermatologist, stratified by severity of HS.
Figure 1b. Types of treatments initiated by referring providers.

Table 1. Patient Demographics, Clinical Features of Hidradenitis Suppurativa and Characteristics of Referrals to Dermatology

Characteristic	Data Category	Frequency (%) or Numerical Data
Sex (n=449)	Females	373 (83%)
	Males	76 (17%)
Age (n=449)	Mean	35.5 years
	Median	35 years
	Range	11-87 years
Wait Time from Referral to Dermatology Appointment (n=409)[a]	Median	9.1 weeks
Total Duration of HS Symptoms at First Visit (n=389)[b]	Mean	7.3 years
	Median	4 years
	Range	0.1-50 years
Hurley Stage of HS (n=446)	Stage I	232 (52%)
	Stage I-II	14 (3%)
	Stage II	175 (39%)
	Stage II-III	8 (2%)
	Stage III	17 (4%)
Referring Provider Specialty (n=451)	Nurse Practitioner (Primary Care)	5 (1.1%)
	Family Medicine Physician	409 (90.7%)
	Emergency Medicine	14 (3.1%)
	Gastroenterology	3 (0.7%)
	Gynecology	10 (2.2%)
	Rheumatology	4 (0.9%)
	General Surgery	5 (1.1%)
	Infectious Diseases	1 (0.2%)
HS Suspected by Referring Provider? (n=451)	Yes—HS subsequently confirmed by dermatologist	286 (63.4%)
	Yes—Diagnosis of HS excluded by dermatologist	2 (0.4%)
	No—Alternate diagnosis suspected	99 (22.0%)
	No suspected diagnosis specified in referral letter, but features of HS (e.g. "recurrent painful boils") were described	22 (4.9%)
	Not applicable—HS was not the primary dermatologic indication for referral	42 (9.3%)
Preliminary Management Initiated by Referring Provider? (n=407)[a]	Yes[c]	256 (63%)
	No	151 (37%)

HS, hidradenitis suppurativa; IBD, inflammatory bowel disease; TNF, tumor necrosis factor.
[a] Excludes patients who were referred for an unrelated dermatologic indication (e.g. skin cancer) and HS was discussed as an additional concern during the dermatology consultation.
[b] Excludes patients who did not report a specific, quantitative duration of HS symptoms.
[c] Includes patients who were started on treatment with anti-TNF-α biologics by the referring provider for pre-existing IBD or rheumatologic indication (n=5).

3000082 - Impact of Secukinumab on the Need for Rescue Surgery in Patients With Moderate-To-Severe Hidradenitis Suppurativa

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Background: SUNSHINE (NCT03713619) and SUNRISE (NCT03713632) were identical Phase 3 randomized, placebo-controlled, multi-center clinical trials which assessed the clinical efficacy of secukinumab in patients with moderate-to-severe hidradenitis suppurativa (HS).

Objective: To evaluate the need for rescue surgical intervention through Week 16 in patients enrolled in the SUNSHINE and SUNRISE trials.

Method: Patients were randomized 1:1:1 to receive secukinumab 300 mg every 2 (SEC Q2W) or 4 weeks (SEC Q4W) or placebo. During the trials, investigators were allowed to perform an unplanned rescue surgical intervention (incision and drainage or excision) or administer rescue therapy (intra-lesional corticosteroid administration) for acute painful single lesions requiring immediate intervention. Analysis of rescue surgical interventions up to Week 16 was performed on the observed pooled data.

Results: Overall, 3.5% of patients underwent at least one rescue surgical intervention up to Week 16. Incidence of rescue surgical intervention was numerically lower in those receiving secukinumab compared with placebo (Figure 1). The proportion of patients requiring incision and drainage was greater in those treated with placebo compared with secukinumab (incision: Any SEC, 2.5% [18/721]; PBO, 4.7% [17/363]). Time-to-first rescue surgical intervention (mean [SD] days) was longer with SEC Q2W treatment compared with placebo, and was similar between the Any SEC group and placebo (SEC Q2W, 55.3 [38.5] days; SEC Q4W, 39.0 [33.6] days; Any SEC, 45.8 [35.7] days; PBO, 45.1 [27.8] days).

Discussion: These data suggest that treatment with secukinumab in patients with HS may reduce the need for rescue surgical interventions on acute painful lesions.

3000083 - Effect of Secukinumab on Draining Tunnels in Patients with Moderate-to-Severe Hidradenitis Suppurativa

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Background: In patients with hidradenitis suppurativa (HS), draining tunnels are associated with more severe disease and poor response to therapy.

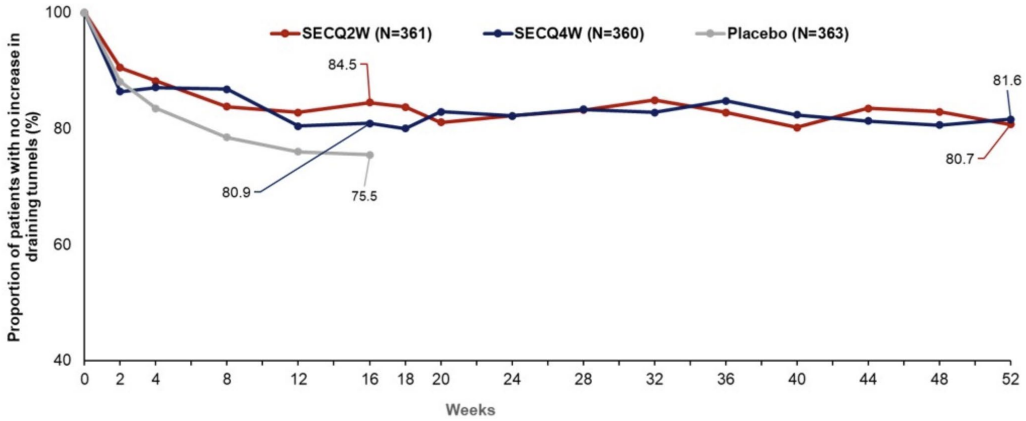
Objective: To report the effect of secukinumab on draining tunnels from baseline to Week 52 in patients with moderate-to-severe HS in the phase 3 SUNSHINE (NCT03713619) and SUNRISE (NCT03713632) trials.

Method: Patients were randomized 1:1:1 to receive secukinumab 300 mg every 2 (SEC Q2W) or 4 weeks (SEC Q4W) or placebo. At Week 16, patients randomized to SEC continued with the same dose regimen and patients randomized to placebo were switched to receive SEC Q2W or SEC Q4W through Week 52. The change in number of draining tunnels from baseline was assessed up to Week 52 in the observed pooled data.

Results: In total, 1084 patients from SUNSHINE and SUNRISE were included in this analysis (SEC Q2W, n=361; SEC Q4W, n=360; placebo, n=363). At baseline, 66.2%, 60.6%, and 62.5% of patients in the SEC Q2W, SEC Q4W, and placebo treatment arms, respectively, presented with at least one draining tunnel. Among patients with at least one draining tunnel at baseline, a numerically greater proportion of patients receiving secukinumab did not have an increase from baseline in draining tunnels at Week 16 compared with placebo (Figure 1). The benefit seen at Week 16 in the secukinumab group was sustained through Week 52.

Discussion: A greater proportion of patients treated with secukinumab had no increase in the number of draining tunnels at Week 16 versus placebo, with the effects sustained through Week 52.

Figure 1. Proportion of patients reporting no increase in draining tunnels over time to Week 52



Line graphs showing the effects of SEC Q2W, SEC Q4W, and placebo from baseline up to Week 52 on draining tunnels in the SUNSHINE and SUNRISE trials (pooled data). Data are presented as observed. At Week 16, patients randomized to placebo were switched to receive SEC Q2W or SEC Q4W up to Week 52. Only patients on continuous secukinumab treatment for 52 weeks are represented in the graph beyond Week 16.

Q2W, every 2 weeks; Q4W, every 4 weeks; SEC, secukinumab 300 mg.

3000084 - Efficacy and Safety of Secukinumab and Concomitant Antibiotic Use in Patients with Hidradenitis Suppurativa

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Background: SUNSHINE (NCT03713619) and SUNRISE (NCT03713632) were identical phase 3, randomized, placebo-controlled, multi-center clinical trials evaluating the efficacy and safety of secukinumab in adults with moderate-to-severe hidradenitis suppurativa (HS). Here, we report Week 16 results of patients enrolled in the antibiotic stratum.

Objective: To evaluate the safety and efficacy of secukinumab in patients with moderate-to-severe hidradenitis suppurativa who were concomitantly treated with a stable dose of systemic antibiotics up to Week 16.

Method: Patients received secukinumab 300mg every 2 (Q2W) or 4 weeks (Q4W), or placebo, in a 1:1:1 ratio. HS Clinical Response (HiSCR50) was the primary endpoint; secondary endpoints included percentage change in abscesses and inflammatory nodules (AN) count, HS flares, and skin pain (NRS30). The subgroup analysis was performed on pooled data using logistic regression models; odds ratios (OR) with 95% confidence intervals are presented. Multiple imputation was applied.

Results: Overall, 127/1,084 (11.7%) of patients in SUNSHINE and SUNRISE received concomitant antibiotics alongside secukinumab (SEC Q2W, 12.2% [44/361]; SEC Q4W, 12.8% [46/360]; placebo, 10.2% [37/363]). Week 16 HiSCR50 rates favored secukinumab therapy over placebo and were similar in patients with concomitant antibiotics (n=127) (SEC Q2W, 50.4% [OR: 4.78 (1.64, 13.95)]; SEC Q4W, 30.5% [OR: 2.01 (0.67, 6.06)]; placebo, 18.1%) and without concomitant antibiotics (n=957) (SEC Q2W, 42.8% [OR: 1.45 (1.05, 2.01)]; SEC Q4W, 45.9% [OR: 1.64 (1.18, 2.27)]; placebo, 34.1%). Similar results were observed for AN count and flares; SEC Q2W provided greater NRS30 responses in patients with or without concomitant antibiotics. Adverse event frequency was similar with concomitant antibiotic use and no new safety signals were observed. Analysis of Week 52 data demonstrated similar results.

Discussion: Secukinumab is effective in patients with moderate-to-severe HS independent of concomitant systemic antibiotic use.

3000085 - Secukinumab Efficacy in Patients with Moderate-To-Severe Hidradenitis Suppurativa and Prior Biologic Treatment

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Background: SUNSHINE (NCT03713619) and SUNRISE (NCT03713632) were identical phase 3, randomized, placebo-controlled, multi-center clinical trials evaluating the efficacy of secukinumab in adults with moderate-to-severe hidradenitis suppurativa (HS). Here we report the Week 16 subgroup analysis for previous exposure to systemic biologic therapy.

Objective: To report the efficacy and safety of secukinumab up to Week 16 in patients with moderate-to-severe HS who were biologic-naive or biologic-experienced at baseline.

Method: Randomized patients received secukinumab 300 mg every 2 (SEC Q2W) or 4 weeks (SEC Q4W) or placebo in a 1:1:1 ratio. Hidradenitis Suppurativa Clinical Response (HiSCR50) was the primary endpoint; secondary endpoints included percentage change in abscesses and inflammatory nodules (AN) count, flares, and skin pain (NRS30). The subgroup analysis was performed on pooled data using logistic regression models; odds ratios (OR) and 95% confidence intervals are presented. Multiple imputation was applied.

Results: Overall, 23.5% (255/1084) of patients in SUNSHINE and SUNRISE were previously treated with biologic therapy (Q2W, 22.2% [80/361]; Q4W, 22.5% [81/360]; placebo, 25.9% [94/363]). Week 16 HiSCR50 rates favored secukinumab therapy over placebo; response rates were slightly lower in biologic-experienced patients (SEC Q2W, 37.0% [OR: 1.60 (0.83, 3.08)]; SEC Q4W, 38.8% [OR,1.67 (0.86, 3.22)]; (placebo 27.3%) compared with biologic-naive patients (SEC Q2W, 45.6% [OR, 1.64 (1.15, 2.33)]; SEC Q4W, 45.4% [OR, 1.61 (1.13, 2.29)]; (placebo, 34.2%). Week 16 AN and NRS30 responses favored secukinumab versus placebo in previously biologic-exposed or biologic-naive patients while a lower proportion of patients experienced flares versus placebo in biologic-naive patients only. Analysis of Week 52 data demonstrated similar results.

Discussion: Secukinumab was effective in patients with moderate-to-severe HS regardless of prior exposure to biologic therapy.

3000089 - Pediatric Hidradenitis Suppurativa Treatment Landscape

Hannah Cole[1], Lisa Shen[2]

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Background: Hidradenitis Suppurativa (HS) is understudied in pediatric patients relative to the adult population. Existing literature names systemic and topical antibiotics, immunosuppressants, finasteride, spironolactone, oral contraceptive pills, metformin, benzoyl peroxide, and retinoids as therapies for managing HS in pediatric patients. Additionally, different surgical procedures have been used for disease management.

Objective: Our research takes a cross-sectional approach to expanding our understanding of the current landscape of HS treatment in the pediatric population by identifying the frequency of different treatments in a sample of pediatric HS patients using the TriNetX database.

Method: We queried the TriNetX research network for patients ages 0-18 years with a diagnosis of Hidradenitis Suppurativa to obtain a cohort of 6731 patients across 70 healthcare organizations. We developed a list of treatments of interest informed by pediatric HS literature and subsequently identified the percentage of each cohort that had ever received each treatment based on TriNetX electronic health record data.

Results: We found that 6% of patients had ever been prescribed adalimumab, 1% had been prescribed infliximab, and 1% had been prescribed ustekinumab. 37% had been prescribed tetracyclines, 64% had been prescribed clindamycin, and 21% had been prescribed benzoyl peroxide. 15% had had any surgical procedure on the skin, subcutaneous and accessory structures, including 9% which had had any incision or drainage procedures on the skin, and 4% which had had excision procedures.

Discussion: This research sheds light on the prevalence of different treatments for HS in the pediatric population, which can inform dialogue around the development of new treatments and treatment guidelines.

3000091 - Impact of Draining Tunnels on Patient- And Physician-Reported Burden in Patients with Hidradenitis Suppurativa

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Background: Hidradenitis suppurativa (HS) has one of the greatest impacts on quality of life (QoL) of any dermatological disease.

Objective: This study explored the patient- and physician-reported burden of HS with and without draining tunnels (dT).

Method: This study used real-world data collected (November 2020–April 2021) from physician surveys, patient surveys, and medical records as part of the Adelphi HS Disease Specific Programme (DSP™). Validated patient-reported outcomes used were HS QoL (HiSQOL) score, work productivity and activity impairment questionnaire, and EQ5D-visual analog scale (EQ5D-VAS). Results are presented descriptively. Patients with missing values for a variable were removed from all analyses involving that variable.

Results: Of 580 moderate-to-severe HS patients included in this study, 46% (n=264) had dT. For patients with and without dT, mean age was 38.9 and 33.3 years, and 55.3% and 57.6% were female, respectively. From physician-reported data, patients with dT were more likely to experience a great impact on their lives than patients without dT (51.1% vs. 31.3%). Physicians agreed (agreement of 7–10 on a 1–10 scale) that patients with dT were more likely to experience a negative impact on their mental health (66.3% vs. 48.7%) and sexual function (65.5% vs. 50.3%). Patients with dT reported higher ratings on a pain scale from 7–10 (10 indicating worst pain, 28.9% vs. 11.0%), and were more likely to experience worse mood, reduced ability to work, negative feelings about the future, and a deteriorated financial situation. Overall, patients with dT reported worse QoL (HiSQOL, 22.3 vs. 16.2), greater work impairment (34.0% vs. 25.9%), and worse general health (EQ5D-VAS, 62.9 vs. 72.0).

Discussion: In this group, patients with dT experienced more substantial disease burden than patients without dT; this provides insight into the impact of dT in HS, and highlights the need for effective treatment strategies.

3000092 - Clinical Burden of Hidradenitis Suppurativa with Draining Tunnels

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Background: Hidradenitis suppurativa (HS) affects 0.3–1.0% of people worldwide and is a chronic, inflammatory skin disease with considerable clinical burden. Patients present with painful lesions, including inflammatory nodules (IN), abscesses, and draining tunnels (dT), typically affecting skin folds in the axillary, groin, gluteal and perianal regions. Currently, there are no data on dT impact on clinical burden.

Objective: Explore clinical burden of moderate-to-severe HS in patients with and without dT.

Method: This retrospective study used data from the Adelphi HS Disease Specific Programme (DSP™) across the US, France, Germany, Italy, Spain and the UK, collected from November 2020 to April 2021 using physician surveys, medical record data (extracted by physicians), and patient surveys. Patients were classified as having moderate-to-severe HS by physician assessment.

Results: 580 patients with moderate-to-severe HS were included; 46% (n=264) had dT. Demographics were similar between the two groups. 50.4% of patients with dT had 2–5 abscesses, versus 33.5% of patients without dT. More patients with dT had ≥6 IN (18.6% vs. 6.3%) and scarring (92.1% vs. 71.2%). Patients with dT experienced more inflammation (73.5% vs. 63.5%), lesion drainage (62.1% vs. 40.0%), malodorous drainage (40.5% vs. 21.3%), and depression (29.6% vs. 18.1%). More patients with dT were treated with systemic antibiotics (49.6% vs.48.8%), biologics (40.6% vs. 27.5%), and systemic/intralesional corticosteroids (17.7% vs. 8.5%). 58.4% of patients with dT versus 30.3% of those without dT were eligible for biologics but were not receiving them, often because physicians wanted to exhaust other treatment options first. Some HS patients had been treated with surgical incision and drainage (48.5% with dT; 31.3% without dT); many had never had surgery (40.5% with dT; 60.8% without dT).

Discussion: HS patients with dT experience greater clinical burden than patients without dT, highlighting a need for more effective disease management approaches in this population.

3000093 - Demographics of Black Americans with Hidradenitis Suppurativa in a Us Healthcare System (1995-2022)

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Background: Hidradenitis suppurativa (HS) is a chronic, inflammatory skin condition characterized by painful nodules and abscesses. Recent studies have suggested higher prevalence and disease severity among Black patients; however, most epidemiological survey studies to date have described homogeneous patient populations.

Objective: To characterize demographic features in a large racially diverse HS cohort, with a focus on Black Americans.

Method: A retrospective descriptive study of patients with HS was performed in a single tertiary care health system in Detroit, Michigan. Electronic medical records for 13,130 patients with HS treated at Henry Ford Health between January 1995 and April 2022 focusing on patient demographics and age at first HS diagnosis were analyzed.

Results: A total of 13,130 patients with HS were assessed, with 7,109 (54.1%) self-identified as Black/African American (Black/AA), 4,772 (36.3%) as White, and 1,249 (9.5%) in other race categories. There were 9,652 (73.5%) women and 3,475 (26.5%) men with a mean (SD) age of 47.9

(17.6) years. A female sex bias of roughly 3:1 in all racial subgroups was observed. Women tended to be diagnosed at earlier ages than men (36.5 y; 95% CI, 36.2-36.8 versus 41.5 y; 95% CI, 40.9-42.0, respectively). Black Americans had a lower age at the time of diagnosis (37.0 y; 95% CI, 36.7-37.4) than White patients (39.6 y; 95% CI 39.1-40.1; P<.001).

Discussion: In this descriptive study among a large, diverse HS cohort, a strong female sex bias was observed for all patients regardless of race. Women and Black Americans tended to be diagnosed at earlier ages. Appropriately designed studies are required to better understand how to optimize the clinical management of HS for patients of different sexes and races who may have unique needs.

3000094 - Effect of Secukinumab on Quality of Life in Hidradenitis Suppurativa in Two Phase 3 Trials

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Background: Hidradenitis suppurativa (HS) can have a profound impact on patient health-related quality of life (HRQoL). The SUNSHINE and SUNRISE phase 3 clinical trials evaluated the efficacy and safety of secukinumab in adults with moderate to severe HS [1].

Objective: To assess the effect of secukinumab on patient HRQoL using the hidradenitis suppurativa symptoms and impact diary (HSSID), a patient-reported outcome measure to assess the impact of HS on HRQoL, in the SUNSHINE and SUNRISE trials.

Method: The study design of the SUNSHINE and SUNRISE trials has been published.1 The HSSID comprised 11 questions relating to HS symptoms and the impact of HS on daily living, where a higher score indicates worse symptoms. The HSSID was completed daily from screening to week 16 visit, then at weeks 20, 24, 28, 44 and 52. Mean absolute change from baseline (CFB) HSSID scores at week 16 and week 52 are reported.

Results: Overall, 1084 patients from SUNSHINE and SUNRISE were included in this analysis. At week 16, mean CFB in HSSID scores was generally greater for the secukinumab treatment groups versus placebo in both trials; improvements were broadly sustained to week 52 (Table 1). Patients switching from placebo to secukinumab typically experienced improvements from week 16 to week 52. Lesion-related pain and lesion-related itching had the greatest mean improvements in HSSID scores.

Discussion: HSSID scores improved from baseline up to 52 weeks of secukinumab treatment, highlighting that secukinumab has a beneficial impact on HRQoL in patients with HS.

Reference:

1. Kimball AB, et al. The Lancet. 2023;401(10378):747-761.

Table 1. HSSID absolute change from baseline, by question, at week 16 and week 52 in the SUNSHINE and SUNRISE trials

	SUNSHINE					SUNRISE				
	SECQ2W N=181	SECQ4W N=180	Placebo N=180	Placebo-SECQ2W N=90	Placebo-SECQ4W N=90	SECQ2W N=180	SECQ4W N=180	Placebo N=183	Placebo-SECQ2W N=90	Placebo-SECQ4W N=93
"How would you rate your lesion-related pain at its worst during the past 24 hours", mean (SE)										
Week 16	-1.4 (0.3)	-1.3 (0.3)	-1.0 (0.3)	-0.8 (0.5)	-1.3 (0.5)	-1.3 (0.3)	-1.4 (0.3)	-0.2 (0.30)	-0.7 (0.5)	0.4 (0.3)
Week 52	-1.7 (0.4)	-1.9 (0.5)	—	-2.3 (0.5)	-2.6 (0.7)	-1.9 (0.5)	-1.4 (0.4)	—	-2.7 (0.6)	-1.6 (0.8)
"How would you rate you lesion-related itch at its worst during the past 24 hours", mean (SE)										
Week 16	-1.3 (0.3)	-1.0 (0.3)	-1.3 (0.3)	-1.1 (0.5)	-1.5 (0.5)	-1.3 (0.3)	-1.4 (0.3)	-0.6 (0.3)	-1.1 (0.5)	0.0 (0.3)
Week 52	-1.3 (0.5)	-1.5 (0.5)	—	-1.7 (0.6)	-2.0 (0.8)	-1.6 (0.5)	-1.3 (0.4)	—	-1.7 (0.7)	-1.7 (0.6)
"How much did your lesion(s) drain during the past 24 hours", mean (SE)										
Week 16	-0.3 (0.1)	-0.2 (0.1)	-0.1 (0.1)	-0.1 (0.1)	-0.2 (0.2)	-0.3 (0.1)	-0.4 (0.1)	0.0 (0.1)	0.1 (0.1)	-0.1 (0.1)
Week 52	-0.1 (0.1)	-0.1 (0.2)	—	0.0 (0.2)	-0.5 (0.3)	-0.2 (0.2)	-0.1 (0.1)	—	-0.1 (0.2)	-0.1 (0.2)
"How much would you rate the odor caused by the draining of your lesion(s) during the past 24 hours", mean (SE)										
Week 16	-0.2 (0.1)	-0.2 (0.1)	-0.1 (0.1)	-0.1 (0.1)	-0.1 (0.1)	-0.3 (0.1)	-0.4 (0.1)	-0.1 (0.1)	0.0 (0.2)	-0.2 (0.1)
Week 52	-0.2 (0.1)	0.0 (0.2)	—	0.2 (0.3)	-0.1 (0.1)	-0.2 (0.2)	-0.3 (0.1)	—	-0.2 (0.3)	-0.3 (0.2)
"How would you rate your physical fatigue at its worst during the past 24 hours", mean (SE)										
Week 16	-0.7 (0.3)	-0.7 (0.3)	-0.4 (0.2)	-0.6 (0.3)	-0.2 (0.4)	-1.1 (0.3)	-1.0 (0.2)	-0.4 (0.3)	-0.7 (0.4)	-0.2 (0.3)
Week 52	-1.0 (0.5)	-1.2 (0.5)	—	-1.5 (0.5)	-0.4 (0.7)	-0.7 (0.4)	-1.0 (0.3)	—	-2.0 (0.7)	-1.6 (0.7)
"How much did HS limit your ability to walk during the past 24 hours", mean (SE)										
Week 16	-0.4 (0.1)	-0.5 (0.1)	-0.3 (0.1)	-0.3 (0.1)	-0.2 (0.2)	-0.2 (0.1)	-0.3 (0.1)	0.1 (0.1)	-0.1 (0.2)	0.2 (0.1)
Week 52	-0.3 (0.1)	-0.5 (0.2)	—	-0.5 (0.2)	-0.5 (0.2)	-0.2 (0.1)	-0.2 (0.1)	—	-0.5 (0.2)	-0.4 (0.2)
"How much did HS limit your ability to move (other than walking) during the past 24 hours", mean (SE)										
Week 16	-0.3 (0.1)	-0.4 (0.1)	-0.3 (0.1)	-0.4 (0.1)	-0.3 (0.2)	-0.4 (0.1)	-0.3 (0.1)	0.1 (0.1)	0.0 (0.2)	0.1 (0.1)
Week 52	-0.4 (0.1)	-0.4 (0.2)	—	-0.4 (0.2)	-0.7 (0.2)	-0.4 (0.2)	-0.2 (0.1)	—	-0.6 (0.2)	-0.3 (0.2)
"How much was your sleep disturbed by HS last night", mean (SE)										
Week 16	-0.3 (0.1)	-0.4 (0.1)	-0.3 (0.2)	-0.4 (0.2)	-0.2 (0.2)	-0.4 (0.1)	-0.5 (0.1)	-0.1 (0.1)	-0.2 (0.2)	0.0 (0.1)
Week 52	-0.5 (0.1)	-0.3 (0.2)	—	-0.6 (0.2)	-0.5 (0.2)	-0.5 (0.2)	-0.4 (0.1)	—	-0.5 (0.3)	-0.4 (0.3)
"How much did HS limit the time you spent with other people during the past 24 hours", mean (SE)										
Week 16	-0.3 (0.1)	-0.3 (0.1)	-0.1 (0.1)	0.0 (0.2)	-0.1 (0.2)	-0.2 (0.1)	-0.2 (0.1)	0.0 (0.1)	0.0 (0.2)	0.0 (0.1)
Week 52	-0.5 (0.1)	-0.4 (0.2)	—	-0.2 (0.2)	-0.1 (0.3)	-0.3 (0.1)	-0.1 (0.1)	—	-0.3 (0.2)	-0.6 (0.2)
"How much did HS negatively impact your emotions during the past 24 hours", mean (SE)										
Week 16	-0.3 (0.1)	-0.2 (0.1)	-0.2 (0.1)	-0.2 (0.2)	-0.1 (0.2)	-0.1 (0.1)	-0.3 (0.1)	0.1 (0.1)	0.1 (0.2)	0.1 (0.1)
Week 52	-0.4 (0.1)	-0.3 (0.2)	—	-0.3 (0.2)	-0.3 (0.2)	-0.1 (0.1)	-0.1 (0.1)	—	-0.2 (0.2)	-0.4 (0.2)
"How much did HS limit your ability to complete your work (at school, at home or at a job) during the past 24 hours", mean (SE)										
Week 16	-0.3 (0.1)	-0.4 (0.1)	-0.2 (0.1)	-0.2 (0.2)	-0.1 (0.2)	-0.2 (0.1)	-0.3 (0.1)	0.0 (0.1)	0.0 (0.2)	0.1 (0.1)
Week 52	-0.4 (0.1)	-0.5 (0.2)	—	-0.5 (0.2)	-0.4 (0.3)	-0.5 (0.1)	-0.3 (0.1)	—	-0.5 (0.2)	-0.5 (0.2)

Note: The HSSID measured HS symptoms and their impact on a patient's HRQoL during the previous 24 hours. The lesion pain, lesion itch, and physical fatigue items used 0 to 10 response scales, where 0 indicated no pain/itch/fatigue and 10 indicated worst possible pain/itch/fatigue. The lesion drainage and drainage odor items used 4-level ordinal responses (no draining/odor, a little draining/odor, moderate draining/odor, a lot of draining/odor). With the exception of the emotions impact (which used 4 response options: not at all, a little bit, moderately, and a great deal), the daily living impacts items featured 5-level ordinal response sets (not at all, a little bit, moderately, a great deal, and unable to [walk/move/sleep/do any work]/avoided all activities with other people). Higher scores on the HSSID indicate worse symptoms. Data for week 16 are based on observed data from the week 16 database lock. Data for week 52 are based on observed data from the week 52 database lock.
HRQol, health-related quality of life; HS, hidradenitis suppurativa; HSSID, hidradenitis suppurativa symptoms and impact diary; N, number of patients in group; Q2W, every 2 weeks; Q4W, every 4 weeks; SE, standard error; SEC, secukinumab 300mg.

3000095 - Incidence of Anxiety Disorders in Adults with Hidradenitis Suppurativa

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Background: There is limited data on risk of new-onset anxiety disorders in patients with hidradenitis suppurativa (HS).

Objective: To compare risk of new-onset anxiety disorder in patients with HS and controls.

Method: Retrospective cohort analysis of a United States electronic health records database between 2011-2020. Adults newly diagnosed with HS at a dermatology or primary care outpatient visit were included. Patients having the same types of encounters with diagnoses other than HS comprised the control group. Those having less than one year of database activity, a previous anxiety disorder diagnosis, or a prescription for common anti-anxiety medications before cohort entry date were excluded. Primary outcome was a composite of new diagnosis of generalized anxiety disorder, phobic disorders, panic disorder or unspecified anxiety. Cox proportional hazards (PH) regression was used to compare crude risk of anxiety disorder between groups and to assess the independent association

with HS while controlling for age, sex, race, Medicaid insurance, body mass index, depression, substance/alcohol abuse, smoking, and healthcare utilization indicators.

Results: Among 9,597 HS patients and 959,493 controls, incidence rate of anxiety disorder diagnoses was 5.74 and 3.86 per 100 person-years, respectively. Among all patients, crude risk was 48% higher for those with HS compared to controls (HR 1.48, 95%CI 1.40-1.55). When stratifying by visit type at cohort entry, HS patients had 2.43 (95%CI 2.13-2.77) times the risk of anxiety disorder compared to dermatology controls and 1.46 (95%CI 1.38-1.55) times the risk compared to primary care controls. In adjusted analysis, the hazard ratio for HS vs. control was 1.11 (95%CI 1.05-1.17) in the overall cohort, 1.26 (95%CI 1.07-1.48) in the dermatology subgroup, and 1.07 (95%CI 1.01-1.13) in the primary care subgroup.

Discussion: HS is associated with increased risk of anxiety disorders. An independent relationship remains, although it is attenuated, when controlling for confounders.

3000099 - Impact of Exogenous Testosterone on Hidradenitis Suppurativa Exacerbation in Patients with Pre-Existing Hidradenitis suppurativa: A Cross-Sectional Study

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Background: Hidradenitis Suppurativa (HS) is a painful inflammatory skin condition disproportionately affecting women. Previous studies have suggested a link between androgens and HS and androgen-modulating therapies are commonly used to treat mild and moderate HS.

Objective: Here, we conduct a cross-sectional evaluation of the risk of HS exacerbation within 6 months of initiating exogenous testosterone (ET) therapy in patients with pre-existing HS diagnosis.

Method: We used ICD-10 codes to identify all patients with HS and a prescription for ET in the MassGeneral Brigham Research Patient Data Registry (11/2016-11/2022). We recorded incidence of HS exacerbation (defined as HS-related emergency department visits, hospitalizations, dermatologic documentation, or treatment escalations) for all patients in the 6 months prior to ET and first 6 months after ET. Significance was calculated using Fisher’s Exact testing.

Results: Thirty-one patients with a mean (SD) age of 48.45 (14.32) years met the inclusion criteria for this study. Seven (22.58%) patients experienced at least 1 disease exacerbation in the 6 months prior to ET therapy. After initiating ET, 2 (28.57%) of the 7 continued to have HS exacerbations, while 5 (71.43%) remained stable. Of the 24 remaining patients, 2 patients (8.33%) experienced worsening HS in the 6 months after initiating ET. There was no significant association between ET use and HS disease exacerbation (p=0.51).

Discussion: In this study, we found a limited association between ET use and exacerbation of a patient’s baseline HS. In general, patients without previous history of HS exacerbation in the 6 months prior to ET therapy remained exacerbation-free in the first 6 months post-ET therapy. The findings of this study highlight the need for further investigation into the role of androgens in HS pathophysiology including additional translational work to elaborate the mechanism through which anti-androgen medications, including spironolactone, contraceptives, and finasteride, act to treat HS.

Figures

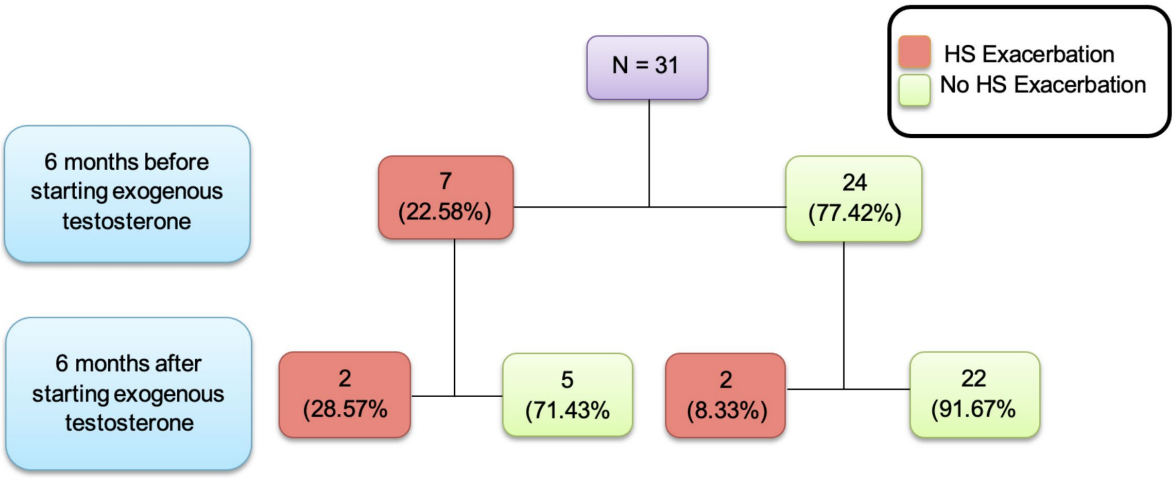

Figure 1. Number of patients with Hidradenitis Suppurativa disease exacerbation(s) before and after taking exogenous testosterone. The difference in the proportion of patients with Hidradenitis Suppurativa disease exacerbation (before versus after taking exogenous testosterone) was 9.7% (95% confidence interval, -9.18% to 28.54%, p=0.51)

Table 1. Participant demographics and clinical characteristics of patients with Hidradenitis Suppurativa before initiation of exogenous testosterone

Patient Characteristics n (%)	Patients with HS exacerbation(s) before initiating ET (N=7)	Patients without HS exacerbation(s) before initiating ET (N=24)	Overall (N=31)
Age, years (mean [SD])	47 (13.53)	49 [14.81]	48.45 [14.32]
Sex			
Cisgender Man	6 (85.71%)	19 (79.17%)	25 (80.65%)
Cisgender Woman	0 (0%)	3 (12.50%)	3 (9.67%)
Non-Binary	0 (0%)	0 (0%)	0 (0%)
Transgender Man	0 (0%)	2 (8.33%)	2 (6.45%)
Transgender Woman	1 (14.29%)	0 (0%)	1 (3.22%)
Race			
White	5 (71.43%)	21 (87.50%)	26 (83.87%)
Black	0 (0%)	1 (4.17%)	1 (3.22%)
Asian	0 (0%)	1 (4.17%)	1 (3.22%)
More than One Race	0 (0%)	1 (4.17%)	1 (3.22%)
Not Disclosed	2 (28.57%)	0 (0%)	2 (6.45%)
Ethnicity			
Hispanic	2 (28.57%)	2 (8.33%)	4 (12.90%)
Non-Hispanic	5 (71.43%)	19 (79.17%)	24 (77.42%)
Unknown	0 (0%)	3 (12.50%)	3 (9.67%)
Duration of Hidradenitis Suppurativa, years (mean [SD])	9.71 [5.94]	10.67 [23.11]	10.45 [20.42]
Hurley Stage Prior to Testosterone Initiation			
Stage I	3 (42.86%)	14 (58.33%)	14 (45.16%)
Stage II	4 (57.14%)	6 (25.00%)	12 (38.71%)
Stage III	0 (0%)	2 (8.33%)	2 (6.45%)
Unknown	0 (0%)	2 (8.33%)	3 (9.67%)
Testosterone Indication			
Hypogonadism/ Low Libido	6 (85.71%)	20 (83.33%)	26 (83.87%)
Gender-Affirmation	1 (14.29%)	2 (8.33%)	3 (9.67%)
Other	0 (0%)	2 (8.33%)	2 (6.45%)
Testosterone Type			
Topical (gel, patch, or powder)	3 (42.86%)	15 (65.20%)	19 (61.29%)
Subcutaneous/Implant	0 (0%)	0 (0%)	0 (0%)
Intramuscular	4 (57.14%)	9 (37.50%)	12 (38.71%)

Abbreviations: HS, Hidradenitis Suppurativa. ET, exogenous testosterone.

3000101 - Retrospective Study of Metformin Therapy for Hidradenitis Suppurativa

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Background: Hidradenitis suppurativa (HS) has no singularly effective therapy and confers an increased risk of diabetes and PCOS. Metformin has demonstrated effects on inflammatory pathways and may have antiandrogenic properties. Yet, there is limited data on the effectiveness of metformin as an HS treatment.

Objective: Assess the effect of metformin mono- or combination therapy on HS outcomes.

Method: This a retrospective cohort study that focused on adults with HS who had documented use of metformin. Charts from 1/1/2018 to 4/17/2023 were reviewed and data abstracted using a standardized form. Descriptive statistics and multivariate logistic regression were performed.

Results: Overall, 140 patients were included with mean (SD) age of 36.5 (14.1) years, 85% were female, 66.4% were white, 10.7% were Black and mean (SD) BMI of 41.5 (8.7). The majority (57.3%) had Stage II HS and mean (SD) HS duration was 14.1 (10.3) years. Half of patients had diabetes (51%) and 22% were insulin-dependent, while 37% had PCOS. Metformin was frequently used with antiandrogens (84.8%) and/or adalimumab (47.8%). Mean treatment duration was 35.3 months with a typical regimen of 500mg BID. Patient-reported response to treatment showed improvement in 34.7%, stability in 56.4%, and worsening in 8.9%. Provider-reported responses will also be reported showed strong correlation (r = 0.88) with patient responses. Multivariate logistic regression showed no significant differences in patient- or physician-reported outcomes when controlling for stage, diabetes, PCOS, or metformin dose.

Discussion: Metformin appears to be an efficacious agent in HS management, especially given its established use in management of comorbid conditions that are more frequent among HS patients. This study is limited by its single-center, uncontrolled, retrospective methodology and use of global ratings. Yet, this study supplies practical data on dosing, safety, and effectiveness that is limited in the peer-reviewed literature.

3000102 - Prevalence and Risk Factors for Hospitalization from Non-Cutaneous Infections in Patients with Hidradenitis Suppurativa.

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Background: Adults with Hidradenitis suppurativa (HS) have comorbidities and are exposed to treatments that may put them at an increased risk for serious infections. However, the prevalence of and risk factors for hospitalization from non-cutaneous infections (NCI) remain understudied in this population.

Objective: Estimate the prevalence of and risk factors for hospitalization from NCI in adults with HS.

Method: This retrospective cohort included adult patients with dermatologist-confirmed HS from a tertiary health care system from 2018 to 2022. Patients with a history of malignancy, organ transplantation, and Human Immunodeficiency Virus (HIV) were excluded. All hospitalization for NCI were identified using primary and secondary diagnostic codes. Multivariable logistic regression was used to evaluate risk factors.

Results: A total of 834 HS patients were included. Of those, 53 developed NCI, totaling 77 hospitalizations. During the 5-year study period, 6.4% of patients were hospitalized for an NCI. Those hospitalized had a median age of 32.8 years [IQR: 27.9-49.1], were mostly females (41; 77.4%), and white (22; 41.5%). Race, smoking, and BMI were similar in both groups. The most common infections were urinary tract infections (18.8%) and Covid-19 (11.69%) (Table 1). The main factors associated with NCI were governmental insurance (OR: 2.05; CI: 1.09 – 3.78), chronic kidney disease (OR: 7.16; CI: 1.90 – 24.11), and anxiety (OR: 3.27; CI: 1.65-5.97).

Discussion: Despite the young age of HS patients, the substantial prevalence of hospitalization for NCI highlights the importance of monitoring for non-cutaneous infections. Further studies on interventions to reduce the risk of infections are needed.

Abstract title: **Prevalence and risk factors for Hospitalization from Non-Cutaneous Infections in Patients with Hidradenitis Suppurativa**

Table 1: Distribution of Non-Cutaneous Infections During the Study Period.

Infection site	No. of infections (n= 77)
UTI infection & Pyelonephritis	14 (18.2%)
Covid-19	9 (11.7%)
Upper respiratory infection	8 (10.4%)
Liver and biliary tract infections	8 (10.4%)
Chorioamnionitis	8 (10.4%)
Sepsis / Bacteremia	8 (10.4%)
Diverticulitis	6 (7.8%)
Gastroenteritis or Enterocolitis	4 (5.2%)
Peritonitis and GI abscess	4 (5.2%)
Pancreatitis	4 (5.2%)
Osteomyelitis	4 (5.2%)
Pyogenic arthritis and infective spondylopathies	4 (5.2%)
Pneumonia	Np* (≤ 5%)
Appendicitis	Np* (≤ 5%)
Orbital Cellulitis	Np* (≤ 5%)
CNS infection	Np* (≤ 5%)

*Np: not provided. The exact frequency was suppressed to preserve the patient's confidentiality.

3000103 - A Bioelectric Dressing for Post-Deroofing Wound Care in Hidradenitis Suppurativa: A Pilot Study

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Background: Local cure of HS can be achieved surgically, preferably by the tissue-saving tunnel deroofing technique. Post-surgical healing by secondary intention is favored as it might prevent recurrence, potentially through decreased entrapment of epithelial debris. However, long healing time, and disease recurrence are a challenge.
Bio-electric wound-dressings (BEWD) have demonstrated electricidal antimicrobial efficacy and enhanced healing times through faster keratinocyte migration. Additionally, embedded zinc and copper microparticles demonstrated anti-inflammatory effects on wounds, mediated via TNF-α and IL-1-dependent pathways, two key cytokines in HS pathogenesis.

Objective: We investigated the effect of BEWD on wound healing clinical markers of inflammation and bacterial load in HS post axillary de-roofing procedure.

Method: In a split-body design, 12 subjects with moderate-to-severe HS underwent same-day, ultrasound-guided, bilateral axillary deroofing and randomized to receive BEWD or standard-of-care (SOC) petrolatum and gauze to each axilla. They were followed for 8 weeks. Tissue was collected from surgery and subsequent wound debridement (Days 14 and 28 post-surgery) for 16r rDNA bacterial strain quantification and microbiome analyses.

Results: Baseline characteristics: 75.0% female, 25.0% Black, 66.7% Hispanic, Median age 31.5, 83.3% overweight/obese, and 50.0% Hurley Stage II and 50.0% Stage III.
BEWD demonstrated faster rate of healing (BWED:0.45±0.28 vs. SOC:0.39±0.28 cm2/day) and greater percent wound area reduction at day 56 (BEWD:88.0±15.7% vs. SOC:80.9±24.3%).

Of the 24 surgical sites, 8(33.3%) showed recurrence in 6 subjects: 4 patients in the SOC-treated site and in 2 subjects bilaterally. On multivariable analysis, only the use of systemic antibiotics was associated with decreased recurrence rates. Tissue analysis revealed reduction of bacterial load.

Discussion: In a representative population, BEWD demonstrated faster healing and less short-term recurrence. This suggests that BEWD may play a role in bacterial load reduction, local inflammation control and may decrease long-term recurrence rates post-deroofing. Tissue analysis for changes in microbiome composition in response to BEWD will be presented.

3000104 - Inpatient Management of Hidradenitis Suppurativa: A Single-Center Retrospective Study

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Background: Hidradenitis suppurativa (HS) is a painful and debilitating chronic disease that affects the intertriginous skin folds. Patients often have a 7-10 year delay in diagnosis and frequently visit the emergency department during acute flares. A subset of these patients are admitted for further management. However, there are no clear admission criteria or studies assessing inpatient outcomes in this population.

Objective: We hypothesize that inpatient admission can be an opportunity to consolidate care for patients with moderate to severe HS. Specifically, we hypothesize that admission provides valuable access to interventions like pain control, rescue therapy, advanced imaging, multispecialty consultations, and planning for biologics/surgery.

Method: A 5-year retrospective chart review was conducted on patients who were admitted for a HS flare. Patients were identified via billing records, ICD-9, and ICD-10 codes.

Results: Among 44 patients, 82 admissions were identified. There were more women (55%), those of African American descent (48%), and Hurley stage III disease (80%). Mean age was 37.8 years old, with a mean BMI 31.5 mg/m2. Gluteal involvement was reported in 60% of admissions. An improvement in pain was seen in 84% of patients during their hospital course. When compared to medicine admissions, dermatology had shorter length of admission (4.94 days vs 8.43) and time to biologics (25.9 days vs 67.6 days).

Discussion: In select patients with moderate to severe HS, admission can provide an opportunity to intervene and provide urgent medical care during severe flares. Larger studies are needed to assess inpatient outcomes between specialties and to establish admission and management guidelines.

3000107 - Factors Influencing Appeal Decisions for Federal Disability Benefits in Patients with Hidradenitis Suppurativa

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Background: Approximately 15% of Hidradenitis Suppurativa (HS) patients report disease-related disability. Patients applying for federal disability benefits are evaluated through a five-step sequential process. (Figure 1) Patients initially denied benefits may appeal the decision by filing a civil lawsuit in a federal district court, which represents the last level of appeal.

Objective: We aimed to characterize patient reasoning for appeal of the decision to deny disability benefit, the appeal outcomes, and the rationale for the federal court's determination.

Method: A search of the terms "Hidradenitis Suppuritiva" was performed in the LexisNexis legal database from the years 1960 to 2022. Identified court cases were manually reviewed and we included for analysis cases for which HS was the primary basis for the federal disability claim.

Results: Seventy-two last stage appeals between 1994-2022 from all US regions were identified. Twenty-six (36%) appeals were remanded (sent back to original decision-maker for reconsideration) while forty-six (64%) appeals were denied. Table 1 describes the most frequent patient arguments and rationales for the federal court's decision.

Discussion: Improved physician documentation, particularly with respect to extent, locations, and recalcitrance (Listing 8.06), will support initial disability application and, when necessary, appeal of benefit denials, on behalf of HS patients.

Figure 1: Social Security Administration's Five-Step Sequential Disability Evaluation

SGA = Substantial Gainful Activity

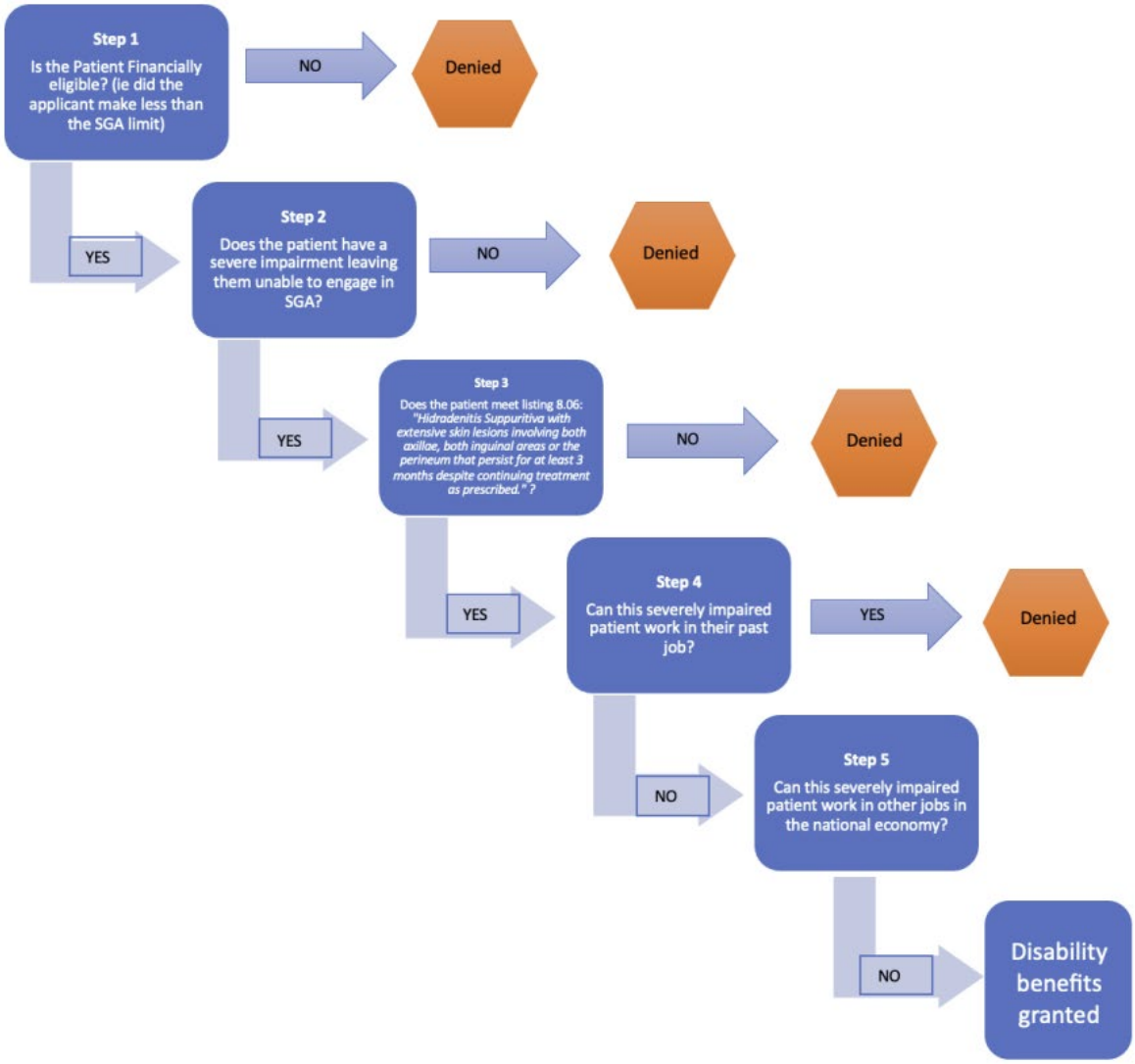

Table 1: Common patient arguments for appealing disability decision and reasons for federal court denial or remand

Variable	Description	Number (%[a]) cases
Patient (plaintiff) arguments		Total n = 72
	ALJ did not properly evaluate whether claimant's condition met or equaled Listing 8.06 (Step 3)	30 (41.7)
	ALJ failed to properly evaluate the testimony of the patient's treating physician	20 (27.8)
	ALJ did not properly evaluate the severity of the patient's HS	13 (18.1)
Rationale for federal court denial		n = 46
	The medical record does not support the plaintiff's or treating physician's testimony	25 (54.3)
	Plaintiff does not meet the requirements of listing 8.06	12 (26.1)
	Does not meet duration requirement	5 (10.9)
	Does not meet requirement due to treatment non-adherence	4 (8.7)
	Does not meet lesion location requirement	1 (2.2)
	Reason for not meeting listing 8.06 not specified	4 (8.7)
	No evidence of HS imposing functional limitations, or patient retains residual functional capacity	11 (23.9)
Rationale for federal court remand [b]		n = 26
	ALJ did not adequately address whether Plaintiff met Listing 8.06 (step 3)	6 (23.1)
	Impairment Incorrectly Found "Not Severe"	6 (23.1)
	Incomplete / Inaccurate Record - Record Inadequately Developed	5 (19.2)
	Treating Source - Opinion Rejected Without Adequate Articulation	4 (15.4)

a – Percentages are calculated based on different denominators for total cases (n=72), denied cases (n=46), and remanded cases (n=26)
b – Remanded cases are sent back to the original decision-maker for reconsideration, and represent a decision in favor of the patient.
Abbreviations: ALJ, Administrative law judge; HS, Hidradenitis suppurativa; RFC, residual functional capacity

3000109 - Risk of Congestive Heart Failure Development and Exacerbations in Hidradenitis Suppurativa Patients on TNFα Inhibitors

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Background: Tumor Necrosis Factor alpha Inhibitors (TNFi) have been implicated in the development of new or worsening congestive heart failure (CHF) in patients with immune dysregulation.

Objective: However, evidence is mixed, and there is scant research investigating the relationship between TNFi therapy and CHF risk specifically in patients with hidradenitis suppurativa (HS).

Method: A retrospective cohort study was conducted using TriNetX, a federated database of ~100 million patients. First, HS patients from 2006-2022 without HF were identified and stratified into two cohorts: those with a 1+ year history of TNFi use and those without. A 1:1 matched propensity score analysis was conducted, adjusting for comorbidities and demographics, to calculate adjusted risk ratios (aRR) with 95% CI at 1-year follow-up for new development of HF. Next, HS patients with pre-existing HF were analyzed to determine whether a 1+ year history of TNFi use increased the risk of HF-exacerbation. Additional endpoints included comparison of left ventricular ejection fraction (LVEF), B-type natriuretic peptide (BNP), creatinine, C-reactive protein (CRP), and albumin.

Results: The first analysis revealed a matched sample of 6,415 HS patients without HF. HS patients on TNFi had no significant difference in risk of developing new HF (aRR[95%CI]=0.806[0.64-1.01] when compared to those not on TNFi. HS-TNFi patients did have lower creatinine (p=0.01) and albumin (p<0.001). The second analysis included 216 HS patients with pre-existing HF (HS-HF). HS-HF patients on TNFi were significantly less likely to develop HF exacerbations (0.744[0.64,0.86]) compared to those not on TNFi. HS-HF patients taking TNFi had no differences in LVEF, BNP, CRP, creatinine, or albumin.

Discussion: TNFi use in HS did not increase the risk of new HF and decreased the risk of HF exacerbation in HS-HF patients. Further studies are warranted to validate these findings.

3000110 - Ulcerative Hidradenitis Suppurativa: A Unique Variant of Disease

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Background: Hidradenitis suppurativa (HS) is a chronic inflammatory disease characterized by recurrent lesions, usually in intertriginous areas. The primary lesions described in HS include nodules, abscesses, tunnels, double headed comedones and rope-like scarring. People with HS also present with ulcerative lesions that typically are thought to be secondary and represent break down of abscesses or tunnels or are consistent with pyoderma gangrenosum.

Objective: Here, we report our clinical observation of a unique primary lesion of HS that is ulcerative in nature.

Method: Case series

Results: The first patient was a 35-year-old male who presented with a several-year history of non-healing, painful ulcerations in the axillae. Examination demonstrated draining ulcerations in both axillae, extending to upper arm and chest wall. The second patient was a 44-year-old male with 2-year history HS, who developed ulcerations within previously nodular lesions. Examination demonstrated large ulcerations in the axillae causing significant pain. The third patient was a 22-year-old male with 7-year history HS who initially presented after developing infection in HS lesions. Examination demonstrated large wounds of the left axilla, limiting patient's range-of-motion (ROM) due to severe pain.
In each case, patients were unable to extend arm(s) away from the chest wall, essentially "pinning" the arms to the sides, and standard-of-care treatment resulted in little improvement. After surgical or staged CO2 laser removal of ulcerative lesions, each patient achieved complete healing of the involved areas and dramatically increased ROM.

Discussion: We describe a unique ulcerative HS variant. Ulcerative HS may be spontaneous, presenting as the primary lesion, or may be preceded by other lesions that quickly evolve into large,

full thickness, shallow ulcers that are exquisitely tender. Thus far, ulcerative HS lesions appear poorly responsive to standard wound care and/or pharmacologic treatments, but resolution has been achieved with excision and either secondary-intention healing or repair.

3000113 - A Systematic Review of Adherence in the Treatment of Hidradenitis Suppurativa

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Background: Adherence to medication and behavior change interventions plays a critical role in the management of hidradenitis suppurativa (HS). Non-adherence in HS patients is high and can lead to suboptimal outcomes and reduced quality of life. There is a paucity of knowledge regarding the factors influencing HS treatment adherence.

Objective: To analyze the literature on adherence to HS treatment and identify the barriers and facilitators impacting patient compliance.

Method: In February 2023, we systematically searched PubMed and Embase for articles from 2000 to 2023 regarding HS treatment adherence. Specific information regarding patient characteristics, treatment modalities, and adherence measures were extracted and synthesized.

Results: A total of 22 articles met the search inclusion/exclusion criteria, involving 3,403 patients total. The most frequently addressed dimension of adherence was therapy-related factors, investigated in 68% of the articles (15/22). Patient-related factors were considered in 45% of the studies (10/22), while socioeconomic factors were examined in 27% of the studies (6/22). Eleven articles focused on adherence to systemic medication and reported barriers of low efficacy, side effects, injection site pain, cost, unclear instructions, and lack of consistent follow-up. Three articles addressed adherence to topical medication including barriers such as cost, unclear instructions regarding application, lack of efficacy, and inconvenience. Two articles examined both systemic and topical medication adherence and addressed barriers of interference with daily activities, side effects, and low efficacy. Six articles explored adherence to lifestyle or behavioral modifications and addressed physician interaction as a factor.

Discussion: This systematic review identified therapy-related factors as the most commonly addressed dimension of adherence. This highlights the need to individualize the medication regimen, taking into account patient's needs, side effects tolerance, financial burden, and response to initial therapy. To improve adherence, HS providers can implement strategies such as addressing injection site pain, staggering medication initiation, customizing medication regimens, and utilizing patient support programs.

3000114 - Expert Practices in Hidradenitis Suppurativa Flare Management

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Background: Patients with hidradenitis suppurativa (HS) often experience recurrent flares, which can cause debilitating physical and emotional symptoms. However, there is a paucity of research regarding HS flare management amongst providers.

Objective: The aim of this study was to understand the flare management practices of HS experts.

Method: An anonymous online survey was distributed through an HS expert listserv in March and April 2023. Board-certified dermatologists who saw ≥1 HS patients per month were included.

Results: A total of 35 dermatologists (60% female, 54.3% White, mean age 43.4 ± 9.4 (range 33-67)) participated in the survey. Respondents' demographics and flare management practices are highlighted in Table 1. The mean number of HS patients seen per month was 38.4 (standard deviation 19.6, range 12-100). Nearly all respondents self-identified as HS experts (97.1%) and directed HS specialty clinics (88.6%). Top therapies used for HS flares included systemic antibiotics (100%), non-prescription pain relievers (91.4%), intralesional triamcinolone injections (91.4%), prescription pain relievers (71.4%), oral corticosteroids (68.6%), and warm compresses (68.6%).

Discussion: Our study highlights HS experts' flare management practices, some of which are not included in the current North American HS treatment guidelines, such as the use of short courses of oral antibiotics for HS flares. There was also marked variation in the type and duration of treatments recommended by HS specialists for flare management. Rigorous prospective studies investigating the efficacy of HS flare treatments and HS expert consensus guidelines are needed to help optimize our approach to HS flare management.

Table 1. Respondents' Demographics and Perspectives on HS Flare Management Practices

Demographics and HS Flare Management Practices	N (%)
Gender (n=35)	
Female I Male I Prefer not to specify	21 (60%) I 13 (37.1%) I 1 (2.9%)
Age, Mean ± SD (range) (n=35)	43.4 ± 9.3 (33-67)
Number of HS patients seen in a month, Mean ± SD (range) (n=35)	38.4 ± 19.6 (12-100)
Race/Ethnicity (n=35)	
White	19 (54.3%)
Asian/Pacific Islander	6 (17.1%)
Hispanic/Latino	2 (5.7%)
African American	2 (5.7%)
Bi- or multi-racial	1 (2.9%)
Other[a]	2 (5.7%)
Prefer not to say	3 (8.6%)
Country of Practice (n=35)	
United States I Canada I France I UK I Australia	31 (88.6%) I 1 (2.9%) I 1 (2.9%) I 1 (2.9%) I 1 (2.9%)
Primary Practice Setting (n=35)	
Academic I Community	31 (88.6%) I 4 (11.4%)
Primary Practice Location (n=35)	
Urban I Suburban	29 (82.9%) I 6 (17.1%)
Hurley stage of majority of patients seen (n=35)	
Stage II-III I Equal amounts of stage I and stage II-III	29 (82.9%) I 6 (17.1%)
Current or former board member of a national or international HS Foundation (n=35)	
Yes I No	15 (42.9%) I 20 (57.1%)
Non-prescription pain relievers recommended (n=34)	
NSAIDs	33 (97.1%)
Tylenol (acetaminophen)	29 (85.3%)
Topical lidocaine	19 (55.9%)
Cannabis	7 (20.6%)
Other[b]	1 (2.9%)
Prescription pain relievers recommended (n=33)	
High-dose ibuprofen	18 (54.5%)
Tramadol	18 (54.5%)
Acetaminophen with codeine (Tylenol #3)	12 (36.4%)
Norco or Vicodin (hydrocodone/acetaminophen)	9 (27.3%)
Percocet (oxycodone/acetaminophen)	9 (27.3%)
Other[c]	10 (30.3%)
Dose of intralesional triamcinolone used (n=34)	
10 mg/cc I 20 mg/cc I 40 mg/cc	20 (58.8%) I 15 (44.1%) I 19 (55.9%)
Tools used to perform incision and drainage on active lesions (n=31)	
Punch tool I 11 blade I 15 blade	24 (75%) I 18 (56.3%) I 6 (18.8%)
Typical starting dose of oral prednisone (n=33)	
>1 mg/kg I 0.5 mg/kg-1 mg/kg I 0.25 mg/kg I Other[d]	1 (3.0%) I 20 (60.6%) I 4 (12.1%) I 8 (24.2%)
Typical length of total oral prednisone course (n=33)	
4 weeks I 3 weeks I 2 weeks I ≤10 days I Other[e]	2 (6.1%) I 6 (18.2%) I 12 (36.4%) I 10 (30.3%) I 3 (9.1%)
Systemic antibiotics prescribed (n=35)	
Tetracyclines	32 (91.4%)
Trimethoprim/sulfamethoxazole	22 (62.9%)
Amoxicillin/Clavulanic acid	21 (60%)
Clindamycin	21 (60%)
Fluroquinolones	18 (51.4%)
Ertapenem (IV or IM)	17 (48.6%)
Metronidazole	15 (42.9%)
Cephalexin	12 (34.3%)

Cefdinir	5 (14.3%)
Other[f]	6 (17.1%)
Combinations of systemic antibiotics prescribed (n=24)	
Clindamycin-rifampin	20 (83.3%)
Rifampin-metronidazole-fluroquinolone	4 (16.7%)
Bactrim-cephalexin	2 (8.3%)
Other[g]	3 (12.5%)
Typical length of systemic antibiotic course (n=35)	
2-3 weeks	17 (48.6%)
≥3 weeks	12 (34.3%)
1-2 weeks	4 (11.4%)
Other[h]	2 (5.7%)
Protocol (pre-defined algorithm or plan) for HS patients who may need to be seen for flares (n=35)	
Yes I No	14 (40%) I 21 (60%)
The workflow/algorithm takes the severity of the flare into account to determine the best next steps (n=14)	
Yes I No	10 (71.4%) I 4 (28.6%)
Dermatologist reported barriers that patients face accessing care during flares (n=35)	
Lack of clinic appointment availability	31 (88.6%)
Distance that patients have to travel to reach clinic	30 (85.7%)
Lack of transportation for patients	22 (62.9%)
Patients are unable to miss work/school	21 (60%)
Patients do not have childcare available	18 (51.4%)
Patients have too much pain to travel to clinic during a flare	17 (48.6%)
Lack of health insurance or limited healthcare coverage	7 (20.0%)
Other[i]	5 (14.3%)

Abbreviations: HS, hidradenitis suppurativa; IM, intramuscular; IV, intravenous; kg, kilogram; mg, milligram; N, number; NSAIDs, non-steroidal anti-inflammatory drugs; SD, standard deviation; UK, United Kingdom

[a]Other: Middle Eastern, unspecified (n=1 each)

[b]Other: voltaren gel (n=1)

[c]Other: "oxycodone" (n=3); "pain specialist/FD", "oxycodone or hydrocodone without acetaminophen added", "topical morphine", "duloxetine, gabapentin", "refer to pain management for prescription pain medication", "dutasteride", "meloxicam" (n=1 each)

[d]Other: "15mg/day", "60mg or 40mg/day", "20-30mg/day", "30mg/day", "40-50mg/day", "50mg/day", "40-60mg", "40mg/day", (n=1 each)

[e]Other: "6 weeks and reassess", "12 days", "4-6 weeks" (n=1 each)

[f]Other: "Clindamycin/rifampin" (n=2); "Linezolid", "Pristinamcyin +/- metronidazole", "Rifampin, Linezolid", "Azithromycin, Linezolid" (n=1 each)

[g]Other: "Linezolid+Cefdinir", "pristinamycin and metronidazole or augmentin and metronidazole or if gastric intolerance moxifloxacin + metronidazole and for a severe relapse ceftriaxone + metronidazole", "metronidazole-moxifloxacin +/- rifampin, may add rifampin to tetracyclines, Augmentin, or cefdinir, may add linezolid to others" (n=1 each)

[h]Other: "depends 7-14 days", "depends on clinical situation", (n=1 each)

[i]Other: "Difficulty getting in touch with someone in our clinic who can get them an urgent appointment", "Flare on weekend when clinic closed", "Dermatologists in the community do not like to treat HS" (n=1 each); "I do not know" (n=2)

3000115 - Emergency Department Usage and Characteristics of Pediatric Patients with Hidradenitis Suppurativa

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Background: Hidradenitis suppurativa (HS) is an inflammatory skin disease that may have acute, painful exacerbations necessitating care in the emergency department (ED). Little is known about how pediatric patients utilize emergency care for HS.

Objective: To determine the incidence, associations, and cost of emergency care for HS in the United States.

Method: We analyzed data from the National Emergency Department Sample between 2015-2019, including a 20% cross-sectional sample of US ED visits (N=142,715,425). Complete data of patients ≤ 18 were included. Primary or secondary diagnoses of HS were identified using the International Classification of Disease-10-Clinical Modification code L73.2.

Results: The mean annual incidence of ED visits with a primary diagnosis of HS was 81.9-95.7 cases per 1 million persons. Patients who visited the ED with a primary diagnosis of HS were more likely to have a lower median household income (P<0.0001) and public or no insurance (P<0.0001) compared

to patients without a primary diagnosis of HS. Patients with a primary diagnosis of HS were more likely to be admitted compared to those without a primary diagnosis of HS (4.3% vs. 3.5%, P=0.0037). The geometric mean and total costs of ED visits for HS increased over time from $1,364 and $3,056,349 in 2016 to $1,914 and $4,648,488 in 2019.

Discussion: The incidence of ED visits for pediatric patients with HS was relatively stable over time. Interestingly, the costs of ED care increased over the same period. Patients with HS were more likely to have a lower income and also public or no insurance, compared to those without HS, suggesting that HS may disproportionally affect underserved populations.

Disclosures: Dr. Riley has served as an advisory board member and has received consulting fees from Novartis Pharmaceuticals.

3000116 - Comparison of Wet-To-Dry and Petrolatum and Non-Stick Dressing for Second Intention Healing following Hidradenitis Suppurativa Surgery

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Background: Hidradenitis suppurativa (HS) is a chronic inflammatory skin condition often requiring surgery for definitive treatment. Two bandaging types are frequently used for second intention healing after HS deroofing procedures: wet-to-dry dressings and petrolatum and nonstick bandaging.

Objective: The purpose of this study is to characterize and compare quality of life and second intention wound healing of two bandaging regimens following HS deroofing procedures.

Method: After deroofing procedures, patients were randomly assigned a bandaging group: wet-to-dry or petrolatum and nonstick dressing. Patients received surveys evaluating wound and bandaging metrics at weeks 1, 2, and then every 2 weeks until healed. The validated Wound Quality of Life (QOL) survey, pressure ulcer scale for healing (PUSH), and photograph wound assessment tool (PWAT) were used to assess QOL and wounds. T-tests were performed on wound healing time, QOL, and pain scores.

Results: At time of this reporting, 43 wounds have complete data, with 58 expected at the time of the conference. Dropout rate was approximately 20%. Table 1 summarizes patient characteristics and outcomes.

Discussion: Pain associated with dressing changes was significantly higher in wet-to-dry compared with petrolatum and nonstick dressings. Patient reported time to wound healing between the two groups was not statistically different. Petrolatum and nonstick dressings may be an effective and better tolerated bandaging type compared with wet-to-dry for these patients. This is the first prospective, randomized-controlled trial evaluating bandaging methods following HS surgery, and provides a framework for measuring wound healing and quality of life in future studies.

Table 1: Patient characteristics and outcomes

		Petrolatum + nonstick	Wet-to-dry
Mean age		35.0	39.3
Sex		Number (%)	
Female		19 (82.6%)	14 (70.0%)
Male		4 (17.4)	6 (30.0%)
Race/ethnicity			
Black		15 (65.2%)	9 (45.0%)
White		7 (30.4%)	6 (30.0%)
Asian		1 (4.3%)	0 (0%)
Hispanic or Latino		0 (0%)	1 (5.0%)
Mixed race		0 (0%)	4 (20.0%)
Body locations			
Axilla		13 (56.5%)	10 (50.0%)
Inframammary		2 (8.7%)	1 (5.0%)
Inguinal		6 (26.1%)	6 (30.0%)
Other		2 (8.7%)	3 (15.0%)
Local Hurley stage			
II		14 (60.9%)	13
III		9 (39.1%)	7
Mean wound size (cm^2)		30.6	23.5
Mean wound healing time (patient reported)	p-value: 0.33	57.2	50.4
Mean wound QOL score	p-value: 0.33	0.62	0.67
Mean overall wound pain (scale 1-10)	p-value: 0.17	1.68	2.03
Mean pain with applying dressings	p-value: 0.02	0.99	1.71
Mean pain with removing dressings	p-value: 0.01	1.98	3.16

3000119 - Patient Practices in Hidradenitis Suppurativa Flare Management

Sarah Park[1], Rahul Masson[2], Vivian Shi[3], Jennifer Hsiao[4], Maria Aleshin[5]

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Background: More than 80% of patients with hidradenitis suppurativa (HS) experience disease flares at least monthly. However, there is a paucity of data on the type of flare management techniques used by patients and their perceived efficacy.

Objective: The aim of this study was to characterize the flare management practices of patients with HS.

Method: An anonymous survey was distributed March-April 2023 through online HS patient support groups.

Results: There were 900 respondents (92.3% female, 66.1% White, mean age 39.4 ± 11.4 (range 18-79)). The majority had self-reported Hurley Stage II (47.0%) and III (40.8%) HS. Only 33.0% were "somewhat" or "very" satisfied with their flare management. Respondents' use of flare treatments are

highlighted in Figure 1. Intralesional steroid injections (ILTAC) (65.2%), complementary and alternative treatments (CAM) (61.9%), and warm compresses (59.7%) were reported to be the most helpful treatments.

Discussion: Our study reveals valuable insights into how patients with HS manage their flares. ILTAC was identified as the most beneficial treatment, however, its utilization was comparatively lower than other treatments. This discrepancy may represent difficulties in accessing providers who can perform these procedures during HS flares. Additionally, CAM treatments demonstrated the second-highest reported efficacy emphasizing the importance of providers being knowledgeable about CAM modalities and their role in HS treatment. Overall, less than 70% of respondents were satisfied with their current flare management and nearly 50% reported a lack of guidance on flare management, suggesting more comprehensive verbal and written instructions for managing HS flares may increase patient satisfaction.

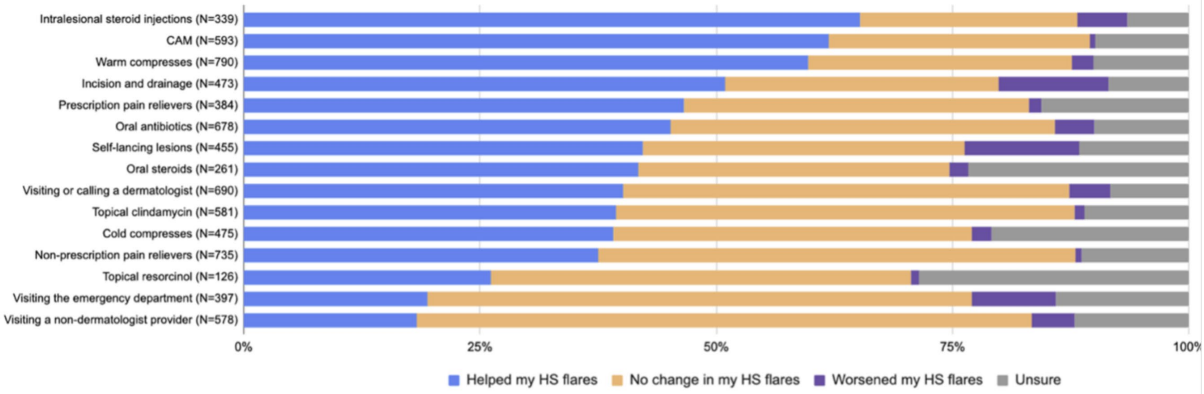

Figure 1. Respondent-perceived effects of HS treatment modalities for flares

Abbreviations: CAM, complementary and alternative medicine

3000120 - Barriers to Accessing Timely and Adequate Treatment, Care, and Resources for Patients with HS in Select US States

Steven Daveluy[1], Brindley Brooks[2], Brent Hazelett[3], Iltefat Hamzavi[4], Anne DiSalvo[5], Theresa Schmidt[5], Danuta Marchi[6], Laura McClung[7], Silky Beaty[7], Jasmine Espy[8], Stephanie Goldberg[9]

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Background: US-based patients with HS face late diagnosis, restrictive insurance policies, and difficulties accessing disability benefits, preventing timely and adequate care.

Objective: To evaluate state/district-level factors that influence care access and outcomes for patients with HS.

Method: A targeted literature review, environmental scan, and analysis of public and private datasets were conducted from November 2022 – March 2023 for California, Georgia, Louisiana, Michigan, and Washington, D.C.

Results: Patients with HS are primarily covered by commercial insurers and Medicaid. State/district coverage varies; Medicaid expansion states reviewed have a higher percentage of patients with HS

covered by Medicaid (e.g., Washington D.C.: 64%), while non-expansion states reviewed have a lower percentage covered by Medicaid (e.g., Georgia: 26%).

Insurance policies impose medication quantity limits for adalimumab across Medicaid fee-for-service (FFS) and managed care organizations (MCOs) in California and Louisiana. Quantity limits apply to Medicaid FFS in Georgia, and to select MCOs in Washington, D.C. and Georgia. Prior authorization for biologics is required in 2/3 MCOs in Washington, D.C., and in Medicaid FFS and MCOs covering adalimumab in Georgia.

The average delay in diagnosing HS is seven to nine years from symptom onset. Once diagnosed, many patients with HS qualify for disability benefits. However, initial approval rates of Supplemental Security Income (SSI)/Social Security Association Disability Insurance (SSDI) applications (across all applicants) are low, at 39–48%; reconsideration hearings have 14–20-month wait times with approval rates of 50–63%.

Few HS-specific quality measures (tools to measure/quantify healthcare processes, outcomes, patient perceptions, and organizational structure/systems) were identified in publicly-reported state-level payment programs.

Discussion: US-based patients with HS face challenges to accessing care, given delay in diagnosis and restrictive insurance policies. Barriers to accessing SSI/SSDI benefits exist across all US patients with and without HS.

Funding: UCB Pharma. Medical writing: Costello Medical.

3000121 - Bimekizumab in Black/African-American Patients with Moderate to Severe Hidradenitis Suppurativa in BE HEARD I and II

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Background: Hidradenitis suppurativa (HS) disproportionately affects the Black/African-American population;[1] however, treatment efficacy data in this population is lacking. Bimekizumab (BKZ) is a humanized IgG1 monoclonal antibody that inhibits interleukin (IL)-17F plus IL-17A.

Objective: Report pooled BKZ efficacy over 16 weeks in Black/African-American patients with HS from the BE HEARD I and II (NCT04242446, NCT04242498) phase 3 trials.

Method: Adults with moderate to severe HS received BKZ 320mg every 4 weeks (Q4W), Q2W, or placebo (PBO). We report 50% HS Clinical Response (HiSCR50) and minimal clinically important difference (MCID) in Dermatology Life Quality Index (DLQI; ≥4-point total score reduction) in the overall population, Black/African-American patients and all other patients at Week 16. Data are

descriptively reported using observed case (OC; in text) and modified non-responder imputation (mNRI; in Table).

Results: 1,014 patients (Black/African-American: n=110; all other: n=899) were randomized to BKZ Q4W, Q2W or PBO. Among Black/African-American patients, Week 16 HiSCR50 achievement was: Q4W: 70.4%; Q2W: 56.0% and PBO: 45.5%. In all other patients, HiSCR50 achievement was higher for BKZ versus PBO (Table). Week 16 DLQI MCID responses in Black/African American patients were: Q4W: 71.4%; Q2W: 54.3% and PBO: 33.3%; in all other patients, responses were higher for BKZ versus PBO. Responses in Black/African-American patients were consistent with the overall population.

Discussion: BKZ demonstrated efficacy, measured using HiSCR50 and DLQI MCID, in Black/African-American patients with moderate to severe HS. Given the small number of Black/African-American patients in the PBO arm, findings should be interpreted with caution.

1. Garg. JAMA Dermatol 2017;153:760–764.

Funding: UCB Pharma. Medical writing: Costello Medical.

Table. HiSCR50 and DLQI MCID among Black/African-American and all other patients at Week 16 (mNRI, OC)

	Placebo		BKZ 320mg Q4W		BKZ 320mg Q2W	
	mNRI *% (95% CI)*	OC *% (n/N)*	mNRI *% (95% CI)*	OC *% (n/N)*	mNRI *% (95% CI)*	OC *% (n/N)*
HiSCR50						
Overall	33.2 (25.4, 40.9) n=146	35.6 (48/135)	56.1 (51.9, 60.4) n=288	59.1 (152/257)	56.9 (54.5, 59.3) n=580	60.3 (315/522)
Black/African-American	43.7 (15.9, 71.5) n=13	45.5 (5/11)	60.8 (48.5, 73.0) n=34	70.4 (19/27)	51.0 (43.4, 58.6) n=63	56.0 (28/50)
All other patients[a]	32.4 (24.3, 40.5) n=132	35.0 (43/123)	55.7 (51.2, 60.3) n=253	58.1 (133/229)	57.4 (54.8, 59.9) n=514	60.6 (284/469)
MCID in DLQI total score						
Overall	45.9 (37.0, 54.9) n=125	49.1 (56/114)	59.9 (55.5, 64.4) n=245	63.5 (139/219)	56.4 (53.8, 59.0) n=496	59.7 (267/447)
Black/African-American	19.8 (0.0, 49.6) n=8	33.3 (2/6)	58.2 (44.3, 72.1) n=26	71.4 (15/21)	51.8 (44.1, 59.6) n=56	54.3 (25/46)
All other patients[a]	48.1 (38.8, 57.4) n=116	50.5 (54/107)	60.0 (55.3, 64.7) n=218	62.4 (123/197)	56.9 (54.2, 59.6) n=439	60.3 (241/400)

Randomized set. [a] Race data missing for n=5 patients. mNRI: patients who took systemic antibiotics as rescue medication for HS as defined by the principal investigator or who discontinued due to adverse events or lack of efficacy were treated as non-responders at all subsequent visits; other missing data were imputed via multiple imputation. OC: denominator represents the number of patients with a non-missing lesion count assessment/DLQI total score in the given week, and percentages are calculated accordingly. HiSCR50: ≥50% reduction from baseline in the total abscess and inflammatory nodule count, with no increase from baseline in abscess or draining tunnel count. DLQI MCID: ≥4-point reduction from baseline in DLQI total score in patients with baseline DLQI ≥4. BKZ: bimekizumab; CI: confidence interval; DLQI: Dermatology Life Quality Index; HiSCR: Hidradenitis Suppurativa Clinical Response; HS: hidradenitis suppurativa; MCID: minimal clinically important difference; mNRI: modified non-responder imputation; OC: observed case; Q2W: every 2 weeks; Q4W: every 4 weeks.

3000122 - Bimekizumab in Patients with Moderate to Severe Hidradenitis Suppurativa by Subgroup in BE HEARD I and II

Haley Naik[1], Jennifer Hsiao[2], Martina Porter[3], Ziad Reguiai[4], Antonio Martorell[5], John W. Frew[6], Ingrid Pansar[7], Robert Rolleri[8], Nicola Tilt[9], Jérémy Lambert[10], Brian Kirby[11]

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Background: Bimekizumab (BKZ) has demonstrated efficacy in patients with hidradenitis suppurativa (HS). As HS severity and prevalence differ by age, disease duration, Hurley stage, and sex, there is a need for treatment that provides consistent efficacy across subgroups.

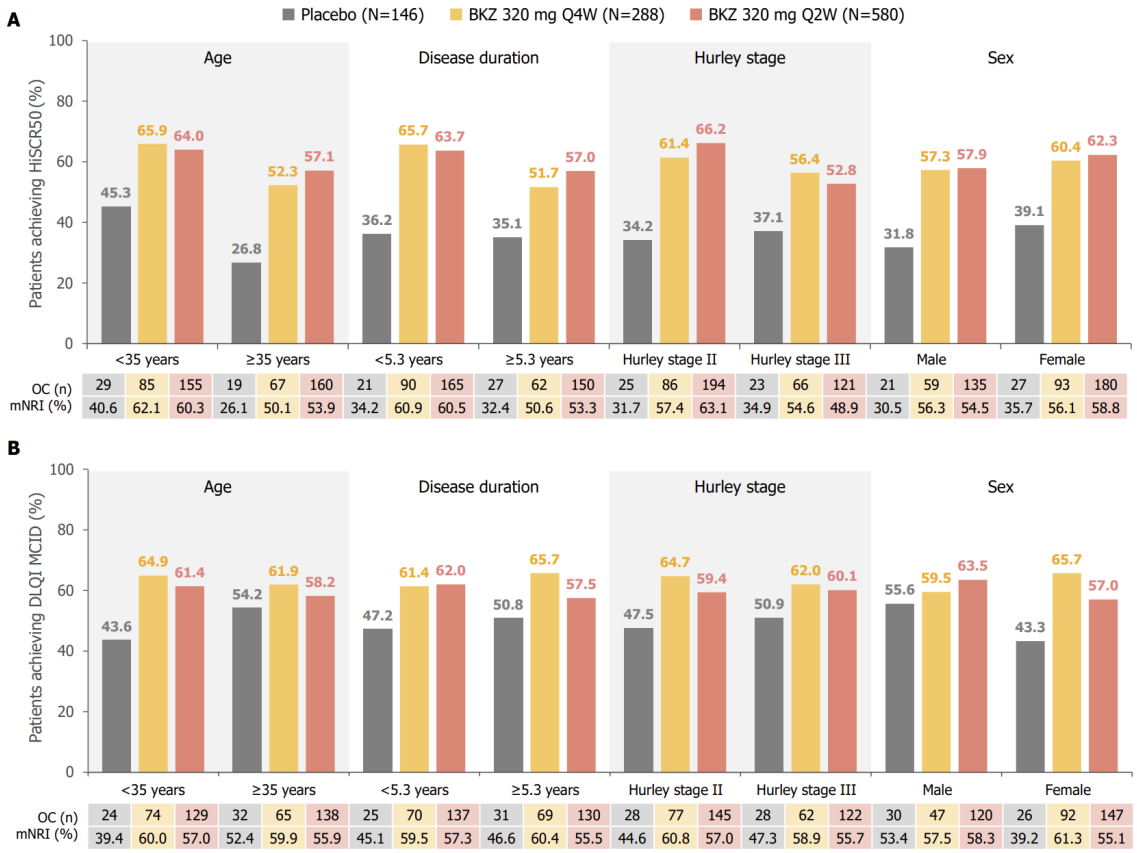
Objective: Report pooled BKZ efficacy by subgroups of interest from the BE HEARD I and II (NCT04242446, NCT04242498) phase 3 trials.

Method: 1,014 adults with moderate to severe HS were randomized to BKZ 320mg every 2 weeks (Q2W), 4 weeks (Q4W) or placebo (PBO). We report 50% HS Clinical Response (HiSCR50) and minimal clinically important difference (MCID; ≥4-point total score reduction) in Dermatology Life Quality Index (DLQI) at Week 16 by participant age (</≥35 years [median]), disease duration (</≥5.3 years [median]), baseline Hurley stage, and sex. Data are reported using observed case (OC) and modified non-responder imputation (mNRI).

Results: Across all subgroups, HiSCR50 and DLQI MCID responses were higher at Week 16 in BKZ- versus PBO-treated patients. There was a numerical increase in HiSCR50 achievement for BKZ-treated patients aged <35 years (Q4W/Q2W: 65.9%/64.0%) versus ≥35 years (52.3%/57.1%); with disease duration <5.3 years (65.7%/63.7%) versus ≥5.3 years (51.7%/57.0%); and with Hurley stage II (61.4%/66.2%) versus III (56.4%/52.8%). Responses in males versus females were similar. For DLQI MCID, responses were comparable within and between subgroups (Figure).
Discussion: BKZ demonstrated efficacy versus PBO in achievement of HiSCR50 and DLQI MCID in all subgroups. BKZ HiSCR50 response rates were numerically higher in younger patients and those with less severe disease or shorter disease duration.

Funding: UCB Pharma. Medical writing: Costello Medical.

Figure. (A) HiSCR50 and (B) DLQI MCID response at Week 16 by age, disease duration, Hurley stage and sex (OC and mNRI)



Randomized set. Bar charts show OC data for which percentages are calculated using the number of patients with a non-missing lesion count assessment/DLQI total score in the given week; number of OC responders are reported in table underneath. For mNRI analysis, patients who took systemic antibiotics as rescue medication for HS as defined by the principal investigator or who discontinued due to adverse events or lack of efficacy were treated as non-responders at all subsequent visits; other missing data were imputed via multiple imputation. HiSCR50: ≥50% reduction from baseline in the total abscess and inflammatory nodule count, with no increase from baseline in abscess or draining tunnel count. DLQI MCID: ≥4-point total score reduction from baseline in DLQI in patients with baseline DLQI ≥4. BKZ: bimekizumab; DLQI: Dermatology Life Quality Index; HiSCR: Hidradenitis Suppurativa Clinical Response; HS: hidradenitis suppurativa; MCID: minimal clinically important difference; mNRI: modified non-responder imputation; OC: observed case; Q2W: every 2 weeks; Q4W: every 4 weeks.

3000123 - Secukinumab Improves Pain in Patients with Hidradenitis Suppurativa: The Sunshine and Sunrise Phase 3 Trials

Joslyn Kirby[1], John R. Ingram[2], Jacek Szepietowski[3], Lukasz Matusiak[4], Georgios Kokolakis[5], Magdalena Wozniak[6], Christine-Elke Ortmann[7], Angela Llobet Martinez[7], Shoba Ravichandran[8], Ivette Alarcon[7], Christelle Pieterse[7], Dagmar Presser[9], Maryam Shayesteh Alam[10], Dimitrios Ioannides[11], Alexa B. Kimball[12], Maryam Shayesteh Alam[13]

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Background: Disease-related pain is a debilitating symptom for patients with hidradenitis suppurativa (HS)

Objective: The effects of secukinumab on HS-related pain at worst are reported.

Method: Patients from the SUNSHINE (NCT03713619) and SUNRISE (NCT03713632) trials received subcutaneous secukinumab 300mg every 2 (SECQ2W) or 4 weeks (SECQ4W), or placebo (PBO) (1:1:1 ratio) between weeks 0–16. From weeks 16-52, patients receiving PBO switched to SECQ2W or SECQ4W. Patient's Global Assessment of Skin Pain at its worst (NRS scale; 0–10, greater score indicates worse skin pain) was recorded daily up to week 16, and weekly thereafter. Pooled data from both trials are reported.

Results: Mean NRS±standard deviation (SD) at baseline (BL) was 5.3±2.5, 5.1±2.5 and 5.2±2.5 in the SECQ2W (N=361), SECQ4W (N=360) and PBO (N=363) groups, respectively.
At week 16, greater mean±SD reduction in pain from BL was observed in secukinumab groups versus PBO (SECQ2W, -1.4±2.2; SECQ4W, -1.1±2.0; PBO, -0.6±2.2) and sustained to week 52 (SECQ2W, -1.8±2.6; SECQ4W, -1.5±2.7). Improvements were observed in patients who switched from PBO to SEC from week 16 to week 52 (PBO-SECQ2W, -1.7±2.8; PBO-SECQ4W, -1.6±2.5).

At week 16, 6.8% of patients receiving SECQ2W reported no pain(NRS=0) and 68.3% reported NRS>0–≤6. Further improvement to 16.9% and 65.9%, respectively, was observed at week 52. In the SECQ4W group 7.9% of patients reported NRS=0 and 68.2% reported NRS>0–≤6 at week 16, and 17.5% and 65.4% at week 52, respectively. 65.3% and 70.1% of patients that reported severe pain (NRS>6) at BL in the SECQ2W and SECQ4W groups, respectively improved to NRS≤6 at week 52.

Discussion: Secukinumab demonstrated sustained improvements in HS-related skin pain at week 16 versus PBO, that was sustained through week 52. Of patients with NRS>6 at BL treated with secukinumab, >65% improved to NRS≤6 or no pain at week 52.

3000126 - Novel Early Intervention Approach to HS Education for Emergency Physicians

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Background: Many patients with HS present to emergency or urgent care venues for treatment of urgent flares, however, they are often met with misinformation, misdiagnosis, or inappropriate treatment. Thus, this is a critical venue for increased HS education. The HS Foundation created an HS didactic to be given by dermatology-interested students to emergency medicine-interested students in order to educate them earlier.

Objective: The purpose of this work is to increase awareness about HS diagnosis and treatment among future emergency clinicians.

Method: The educational materials were developed by the HS Foundation by HS experts, and included a 33-slide PowerPoint presentation, pre- and post-lecture surveys for attendees, and a feedback survey for the host program. The presentation was to be given by dermatology-interested medical students to other medical students and faculty members in emergency medicine. The educational materials were piloted at one program, then disseminated through the Dermatology Interest Group Association, a national group. Interested programs were provided with the lecture materials and an event guidebook.

Results: Overall, 6 medical schools hosted the educational session, 5 collected pre- and post-lecture surveys, and 73 attendees completed the pre-lecture survey. As expected, 98.6% of participants were

medical students. Importantly, 28.8% had not heard of HS prior to this lecture. While 78.1% of attendees correctly identified HS on the pre-test, post-testing revealed that 100% of attendees correctly identified HS. Attendees also reported that this lecture will help them accurately diagnose HS (58.8%), provide more empathetic patient care (29.4%), and appropriately treat HS (13.7%) in the future.

Discussion: These findings describe a model for disseminating HS education through medical schools outside of the formal curriculum. The program demonstrates the effectiveness of educational outreach in improving HS awareness among future physicians in emergency medicine by leveraging those interested in dermatology.

3000133 - Blood Telomere-Methylome Dysregulation in Hidradenitis Suppurativa Patients

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Background: Hidradenitis suppurativa (HS) is a chronic debilitating disease with a significant burden of both organic and psychological comorbidities. It has been shown that certain telomere-related genes (TRGs) affect a wide range of diseases, including HS and its associated comorbidities, but their exact role in HS pathogenesis is still unknown.

Objective: To determine whether TRG methylomes can be used as biomarkers in HS.

Method: Using the Illumina HumanMethylation450 BeadChip array, we examined methylation variations associated with TRGs in HS cases and age-, sex-, and ethnicity-matched healthy controls. The study utilized integrated bioinformatics statistical methods, such as a false discovery rate (FDR), the area under the receiver operating characteristic curve (AUC), and principal component analysis.

Results: There were a total of 585 different differentially methylated CpG sites identified in 585 TRGs associated with HS (474 hypomethylated and 111 hypermethylated) (FDR p-value <0.05). A number of these CpGs have been identified as being involved in increased pain sensitivity including EPAS1, AHR, CSNK1D, DNMT1, IKBKAP, NOS3, PLCB1, and PRDM16 genes; GABRB3 as a potential alcohol addiction marker; DDB1, NSMCE2, and HNRNPA2B1 associated with cancers. Pathway analysis identified 67 statistically significant pathways, including DNA repair, telomere maintenance, mismatch repair, and cell cycle control. ($p<0.001$).

Discussion: The disruption of TRGs leads to the shortening of telomeres, which is associated with HS progression, aging, cellular senescence, and an increased risk of various diseases, including cancer and associated comorbidities, such as metabolic syndrome, cardiovascular disease, and inflammatory disorders. Further research is necessary to better understand the underlying mechanisms and establish causal links between TRGs and HS. The present study is the first effort to comprehend potential pathomechanisms of sporadic HS cases concentrating on PBMC methylome since ours.

3000134 - The Role of Microbiome Dysbiosis and Biofilm Production in Hidradenitis Suppurativa

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Background: Multiple mechanisms explaining the pathogenesis of hidradenitis suppurativa (HS), a chronic inflammatory disease characterized by abscesses and draining sinus tracts, are being investigated. There has been growing interest in the role of the microbiome and dysbiosis in the progression of disease. Production of biofilms is also thought to contribute to recalcitrant and severe disease.

Objective: Our objective was to review studies comparing HS patients and healthy controls to determine differences in the microbiome composition of the skin and gut.

Method: To identify microbiota associated with hidradenitis suppurativa disease progression, a literature search using PubMed, Google Scholar, MEDLINE, and Web of Science was conducted with search terms including “hidradenitis suppurativa”, “microbiome”, “biofilm”, and “microbiota”. A total of 172 articles were screened by two independent reviewers and articles not in English were excluded.

Results: Among the twelve studies selected per the inclusion criteria, patients with HS were found to have a divergent skin microbiome from healthy controls. An increased presence of Prevotella, Peptoniphilus, and Porphyromonas species and decreased normal skin commensal flora, Cutibacterium, was found in HS lesional skin. Research on the role of the gut microbiome has been limited, but three studies indicated a correlation between reduced diversity of microbiome species and increased inflammatory mediators. Cases from two studies showed adherence of aggregated bacteria to the luminal surface of sinus tract tissues implicating biofilm production in HS pathogenesis.

Discussion: The divergent profile of local bacteria in HS lesions may suggest the role of dysbiosis in disease pathogenesis. A more nuanced microbiological understanding may elucidate whether dysbiosis is a result of or a driver of disease progression. The gut microbiome is linked to altered metabolic, inflammatory, and immune pathways. This is a promising area of further investigation as targeted lifestyle modifications may help greatly improve quality of life for patients suffering from HS.

3000139 - Hidradenitis Suppurativa and Social Determinants of Health: An All of Us Analysis

Shivani Jain[1], Aditya Sood[2], Sokol Tushe[2], Ryan Dieudonne[2], Lauren Orenstein[2]

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Background: Social determinants of health (SDOH) impact health outcomes. To provide equitable care and support to those affected by hidradenitis suppurativa (HS), it is important to understand the relationship between HS and various SDOH.

Objective: This study was conducted to examine the association between HS and the following SDOHs: perceived loneliness, stress, and perceived discrimination. It was hypothesized that individuals with HS are more likely to report loneliness, stress, and discrimination compared to non-HS controls.

Method: The sample population included individuals ≥18 years old in the All of Us database: 127 with HS cases and 56,902 non-HS controls. Linear regression was done to analyze the association between HS and the SDOH, adjusting for sex, race, age, and income.

Results: Results showed that those with HS reported a significantly higher rate of stress per the Cohen Perceived Stress Scale (MeanHS = 19.34, [95% CI 18.64, 20.04]; MeanControl = 18.73, [95% CI (18.70, 18.76)]; p = 4.02 x 10-6), discrimination per the Everyday Discrimination Scale (MeanHS = 18.93, [95% CI (17.51, 20.35)]; MeanControl = 16.00, [95% CI (15.94, 16.06)]); p = 2.49 x 10-6), and discrimination in healthcare settings per the Discrimination in Medical Settings Scale (MeanHS = 1.77, [95% CI (1.65, 1.89)]; MeanControl = 1.56, [95% CI (1.56, 1.57)]; p = 2.37 x 10-4). These results remained significant after all adjustments, except in the case of discrimination in medical settings.

There was no statistically significant difference between HS and controls in UCLA loneliness scale scores (MeanHS = 19.34, [95% CI (18.64, 20.94)]; MeanControl = 18.73 [95% CI (18.70, 18.76)]; p = 0.074).

Discussion: These results highlight a potential treatment gap and opportunity to help those with HS navigate SDOH. Routine evaluation of HS patients' psychosocial stressors and perceptions of discrimination may aid in guiding treatment approach and building positive therapeutic alliances.

3000143 - Comparative Analysis of Spanish and English Language Hidranitis Suppurativa Support Groups on Facebook

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Background: The significance of Hidranitis Suppurativa (HS) support groups and their contribution to enhancing the well-being of individuals is increasingly recognized. Support groups on Facebook and other online social platforms provide readily available information and connect people who might not otherwise interact. Spanish is the most common non-English language spoken in U.S. households; however, support group resources available for Spanish-speakers have not been studied extensively.

Objective: To identify and analyze English language and Spanish language HS support groups on Facebook by post activity, number of members, and country of origin.

Method: HS Support groups were identified on Facebook through searches conducted in Mexico (Tijuana) and the United States (San Diego). Searches were conducted using English and Spanish as the set language with the keywords "Hidradenitis Suppurativa" and "Hidradenitis Supurativa", respectively. Analysis was limited to publicly accessible Facebook pages and included country of origin, primary language used in posts, frequency of posting and number of members.

Results: We identified 64 public HS support groups across 8 different countries. Groups with English as their primary language were identified in Canada, Malta, South Africa, the Philippines(n=56), and Spanish in Columbia, Chile, and the United States(n=8). On average, primarily English language groups had a larger number of members (M=466, SD=2,308, Range=1 to 17,000) compared to Spanish (M=189, SD=15, Range=22 to 802) members. Primarily English language groups had more posts per month (M=0.49, SD=15, Range=0.083 to 80) vs. Spanish (M=3.50, SD=4.54, Range=0.080 to 12). Data on Facebook accessed July 9th, 2023.

Discussion: Our findings reveal distinct differences in primarily English versus Spanish language HS support groups on Facebook. Despite the potential for community engagement on social media platforms for patients and their families, language barriers may limit accessibility. Our findings suggest the need for targeted interventions that address the needs of patients with HS that speak languages other than English.

3000145 - When Skin Disorders Are Litigated – a Fifty Year Review of Medical-Legal Characteristics of Hidradenitis Suppurativa Legal Cases

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Background: It is important for dermatologists to be aware of the legal burden of HS, so we can better support our patients.

Objective: This study sheds light on the characteristics and settings of HS litigation claims, which is vital information for discovering potential areas of quality improvement, patterns of liability, patient safety initiatives, and education for patients and health care professionals.

Method: We used the Nexis Uni Academic legal database to conduct a retrospective review of HS-related litigation under state and federal jurisdiction. All cases at the state and federal levels, involving HS from January 1, 1968, through October 31, 2021, were identified through a Boolean search using the terms hidradenitis suppurativa and HS.

Results: In total, 121 cases were included for analysis. There were 352 treating physicians in 21 specialties were referenced. Seven physicians were named as defendants in malpractice cases. Most plaintiffs received treatment in the academic hospitals (79%). One hundred and nine cases (90%) were won by defendants, 7 cases (6%) were won by plaintiffs, and 5 cases (4%) resulted in settlements. There was a significant difference between litigation type and case outcome (p<;0.001). There was a significant difference between plaintiffs' age at litigation (p=.03), plaintiffs' treatment setting (p <;0.001), and case outcome.

Discussion: We found that most cases were decided in favor of the defendant. Specifically, defendants were more likely to win DI cases, plaintiffs were likely to win malpractice cases, and civil cases were more likely to resolve in settlements. Most plaintiffs were female (60%), from the South (43%) or the Mid-West (31%), had comorbidities, and received treatment in academic hospital settings (77%). Most defendants were SSDI commissioners (72%), and the jurisdiction for most cases was at the federal level (99%). Substantial clinical evidence supporting plaintiffs' claims was the most important deciding factor in the verdicts (66%).

3000146 - Hurley staging in patients with hidradenitis suppurativa in the VA Health Care System

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Background: Structured datasets are available with large numbers of patients with HS for epidemiologic studies, but few, if any, include data on HS severity. Hurley staging is a widely used tool to characterize HS severity.

Objective: Determine the incidence of Hurley staging and supportive documentation in the notes of patients with a new diagnosis of HS in the Veterans Affairs Health Care System (VAHCS).

Method: Retrospective, cross-sectional analysis of VAHCS patients using data from the Veterans Affairs Informatics and Computing Infrastructure (VINCI). Patients with HS were identified using at least one ICD-9 [705.83] or ICD-10 [L73.2] code between January 1, 2010 and December 31, 2021. Patients with Hurley staging at index date were identified by searching the index date notes for the term "Hurley". Encounters from the index date were then reviewed to identify documentation supporting the Hurley staging classification from the note (i.e. presence of scarring, presence of tunneling, diffuse involvement in an anatomic area.)

Results: Of 29,483 patients with HS, 809 patients (2.7%) had Hurley staging at initial HS encounter. Of 502 patients with HS classified as Hurley I (63%), 29% and 7.9% had documentation of scarring and tunneling, respectively. None had diffuse involvement documented. Of 261 patients classified as Hurley I-II, II, or II-III in the chart (33%), 62-78%, 43-78% and 0-0.1% had documentation of scarring, tunneling, or diffuse involvement on physical exam, respectively. Of 28 patients with HS classified as Hurley III (3.5%), 75%, 79% and 39% had documentation of scarring, tunneling, or diffuse involvement on physical exam, respectively.

Discussion: While there is only a small percentage of patients that have Hurley staging documented in their initial HS encounter in the VAHCS, there were more than 800 patients with Hurley staging at their index encounter that could be used to evaluate progression of HS over time.

3000153 - Hidradenitis Suppurativa-Associated Cutaneous Squamous Cell Carcinoma in a Diverse Cohort

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Background: Although cutaneous squamous cell carcinoma (cSCC) is a potentially lethal consequence of long-standing hidradenitis suppurativa (HS), studies of this complication are sparse. A major limitation of data concerning HS-associated cSCC is the predominant focus on White individuals.

Objective: We sought to evaluate demographic characteristics and comorbidities of patients with HS-associated cSCC in a cohort of broad racial and ethnic diversity.

Method: Using ICD-9 and ICD-10 codes, we screened adult patients ≥18-years-old with both HS and cSCC receiving care in the Montefiore/Einstein health care system between January 1st, 2015 and September 30th, 2022.

Results: Screening 6960 HS patients, we identified 7 cases of cSCC or cSCC-in situ (prevalence 0.1%). The mean age at cSCC (-is) diagnosis was 55.7±7.1 years; 4 (57%) patients were female; 6 identified as Black/African American, and 1 identified as Spanish/Hispanic/Latino. Low SES, based on Medicaid insurance status, was observed in 4 (57%) patients. There was no history of either human papilloma virus (HPV) or human immunodeficiency virus. The mean duration between HS and cSCC(-is) diagnoses was 11.4±13 years. The mean number of biopsies obtained to make a definitive cSCC(-is) diagnosis was 5±4. Testing for HPV RNA was negative in 1 case and immunostaining for p16 was positive in 1 case. The rate of metastases was 16.7%, and the disease-specific mortality rate was 43%.

Discussion: The rarity of cSCC in our skin of color HS cohort is consistent with previous reports; however, compared to earlier studies of predominantly White patients, we found lower rates of cSCC metastases and mortality, and a shorter mean interval between HS and cSCC diagnoses. As 71% of our cohort required multiple biopsies to confirm cSCC, persistence and wide sampling is essential in the setting of high clinical suspicion. Familiarity with the appearance of cSCC in HS is crucial for early diagnosis and intervention.

3000154 - Association of Hidradenitis Suppurativa and Polycystic Ovary Syndrome in Underrepresented Groups

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Background: Hidradenitis suppurativa (HS) is an inflammatory disorder of follicular biology; androgens are considered to play a role in its pathogenesis. Polycystic ovary syndrome (PCOS) is also characterized by hyperandrogenism. While the association of PCOS with HS is well accepted, previous studies have not controlled for socioeconomic status as a possible confounding factor.

Objective: Since low socioeconomic status (SES) has been associated with PCOS and HS, we sought to investigate this association while controlling for this variable.

Method: Using the All of Us database, female HS patients were nearest-neighbor, propensity-score matched to controls at a 4:1 ratio, selecting for race, ethnicity, age, ever smoker, alcohol use disorder, obesity, type II diabetes, Medicaid status (as a proxy for low SES), and community deprivation index.

Univariate and multivariable logistic regression was conducted to estimate the effect of HS on the presence of PCOS.

Results: A total of 1,022 female HS patients and 4,088 matched female controls were evaluated. Significantly more patients carried a diagnosis of PCOS compared to controls (8.8% versus 4.3%, p<0.001). In multivariable logistic regression, PCOS was significantly associated with HS [OR 1.71 (95% CI 1.34-2.17 while controlling for common medical co-morbidities in both disorders. Markers of SES at an individual and community level did not affect this relationship.

Discussion: This is the first study investigating the association of PCOS and HS within the All of Us database. Our findings are consistent with previous analyses when controlling for a wide range of medical comorbidities. The absence of SES as potential confounder further strengthens this association.

Table 1. Female HS Patients versus Matched Female Controls

Variable	Matched Female Controls* (n=4088)	Female HS Patients (n=1022)	p-value
Age, years [mean (SD)]	48.28 (14.95)	48.14 (14.75)	0.785
Race (%)			0.359
Asian	15 (0.4)	7 (0.7)	
Black or African American	1849 (45.2)	446 (43.6)	
Middle Eastern or North African	28 (0.7)	8 (0.8)	
More than one population	132 (3.2)	42 (4.1)	
White	2064 (50.5)	519 (50.8)	
Ethnicity = Not Hispanic or Latino (%)	3971 (97.1)	982 (96.1)	0.101
Ever Smoker (≥ 100 cigarettes in lifetime)	2011 (49.2)	503 (49.2)	1
Alcohol Use Disorder	398 (9.7)	101 (9.9)	0.934
Obesity	2983 (73.0)	745 (72.9)	0.868
Type II Diabetes Mellitus (T2DM)	1654 (40.5)	420 (41.1)	0.738
Non-Medicaid Insurance (%)	2282 (55.8)	585 (57.2)	0.434
Community Deprivation Index [mean (SD)]	0.33 (0.06)	0.33 (0.06)	0.603
PCOS	199 (4.9)	90 (8.8)	**<0.001**

*Matched controls selected via 4:1 nearest neighbor propensity score matching without replacement with co-variates of race, ethnicity, age, ever smoker, alcohol use disorder, T2DM, insurance status, and community deprivation index that yielded adequate balance ≤ 0.06

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Background: Hidradenitis suppurativa (HS) is a chronic inflammatory skin disorder primarily affecting the axillary, inguinal, and anogenital regions. This condition significantly impacts patient quality of life due to both the inherent disease process and concurrent comorbidities. Despite its impact, a comprehensive analysis of the main risk factors and co-occurring conditions associated with HS is lacking in the scientific

Objective: This study aims to conduct a comprehensive meta-analysis to systematically assess shared risk factors and coexisting medical conditions linked to the pathophysiology of HS, as documented in existing scientific literature.

Method: The study utilized the MEDLINE, Embase, and CINAHL databases to select relevant studies published between 2007 and February 27th, 2023. Full-text cohort studies and case-control studies involving adult patients and control groups were included (24 studies). The quality of evidence was evaluated using the Newcastle-Ottawa Scale, with studies scoring >4 considered for analysis. The meta-analysis employed the inverse-variance method and random effects model to determine the prevalence of HS risks and comorbidities.

Results: The meta-analysis of 47 commonly identified risk factors and outcomes demonstrated a significantly higher prevalence in individuals with HS compared to healthy individuals (Odds Ratio [OR] 1.62, 95% Confidence Interval [CI] 1.39-1.90, $p<0.0001$). Notably, smoking exhibited the highest association (OR 3.09, 95% CI 2.52-3.78, $p<0.0001$). Among psychiatric comorbidities, depression showed the strongest correlation (OR 2.34, 95% CI 1.56-3.51, $p<0.0001$). Additionally, diabetes emerged as a prevalent comorbidity in HS patients, with an OR of 2.31 (95% CI 1.63-3.27, $p<0.0001$).

Discussion: The findings underscore the importance of early identification of disease risk factors and the need for comprehensive therapeutic approaches for HS management. Addressing both the primary manifestations of HS and its associated comorbidities is crucial for enhancing patient outcomes and overall quality of life. This study contributes to a better understanding of HS and highlights avenues for more effective intervention strategies.

3000158 -The Incidence and Predictors of Hospitalization in a Hidradenitis Suppurativa Cohort

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Background: Hidradenitis suppurativa (HS) is associated with higher hospitalization rates compared to moderate to severe psoriasis and the general population. Prior studies relied largely on aggregate data and are more prone to misclassification bias, leaving a gap in understanding patient-specific hospitalization factors.

Objective: Estimate the incidence rate and patient-related factors predictive of hospitalization in adults with HS in a single healthcare system.

Method: This retrospective cohort included adult patients with dermatologist-confirmed HS from a single healthcare system from 2018 to 2022. Incidence rates were derived by dividing the number of hospitalizations over total follow-up time (person-time). Multivariable logistic regression was used to evaluate predictors of hospitalization.

Results: In the study cohort (n=915), 245 (24.6%) were hospitalized during the study period. Hospitalized patients were older (35.4 vs 32.0; p<0.001), more likely to be of black race (33.5% vs 25.4%, p<0.001), and possess public health insurance (37.1% vs 22.4%, p<0.001). Moreover, the hospitalized individuals had a higher prevalence of comorbidities including hypertension, asthma, and depression. The incidence rate for hospitalization was 31.3 per 100 person-years. The predictors for hospitalization included diabetes (OR: 2.10; 95%CI: 1.07 – 4.13), Crohn's disease (OR:2.79; 95%CI: 1.33 – 5.83), and asthma (OR:1.83; 95%CI: 1.16 – 2.86). (Table 1).

Discussion: Despite the young age, HS patients have a high incidence of hospitalization. Future studies on the potential benefit of early detection and management of comorbidities in this population to the risk of hospitalization are warranted.

The Incidence and Predictors of Hospitalization in a Hidradenitis Suppurativa Cohort

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Table 1: Predictors for hospitalization in the HS cohort.

Predictors	*Odds Ratios*	*95%CI*
Age	1.02	1.00 – 1.03
Sex		
Female	Ref	-
Male	1.42	0.95 – 2.11
Race		
White	Ref	-
Black	1.73	1.18 – 2.52
Asian	0.73	0.30 – 1.59
Other	1.87	1.11 – 3.11
Diabetes mellitus	2.10	1.07 – 4.13
Dyslipidemia	0.41	0.22 – 0.74
Asthma	1.83	1.16 – 2.86
Chronic Obstructive Pulmonary Disease	8.28	1.86 – 59.62
Crohn's disease	2.79	1.33 – 5.83
Chronic Kidney Disease	8.48	2.45 – 39.43
Coronary Heart Disease	4.98	1.13 – 27.19
Cancer	2.66	1.32 – 5.33
Anxiety	1.76	1.12 – 2.75
Depression	1.90	1.23 – 2.91

3000168 - Prescription Patterns of Adalimumab for Hidradenitis Suppurativa

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Background: Hidradenitis suppurativa (HS) is a chronic debilitating skin disorder of follicular biology. The only FDA-approved biologic for the treatment of HS, adalimumab is often prescribed for refractory cases. However, the need for prior authorization and other barriers to insurance approval for HS may disproportionately affect the availability of adalimumab in certain demographics.

Objective: We sought to compare demographic characteristics of HS patients who were prescribed adalimumab versus those who were not been prescribed this drug while controlling for common co-morbidities and socioeconomic status.

Method: Using the All of Us database, HS patients were identified and variables of interest were extracted, including sex, age, race, ethnicity, ever smoker, alcohol use disorder, obesity, type II diabetes, adalimumab prescription, Medicaid status (as a proxy for low SES), and community deprivation index. The cohort was then categorized by "receiving" versus "not receiving" an adalimumab prescription.

Univariate and multivariable logistic regression analyses were conducted to estimate the odds of being prescribed adalimumab based on these variables.

Results: Of 1,499 HS patients with complete data, older age and patients with alcohol use disorder, Medicaid insurance, and increased community deprivation index were significantly less likely to have been prescribed adalimumab (Table 1).

Discussion: This is the first study investigating adalimumab prescription patterns in patients with HS. Using the All of Us database, we found patients with older age, alcohol use disorder, and increased socioeconomic burden (Medicaid and higher community deprivation index) were less likely to be prescribed adalimumab. Further investigation into the accessibility of this drug in HS is warranted.

Table 1. Univariate and multivariable logistic regression of patients with hidradenitis suppurativa being prescribed adalimumab

Variable	Univariate				Multivariable		
	N	OR[1]	95% CI[1]	p-value	OR[1]	95% CI[1]	p-value
Sex at Birth	1,499						
Female		—	—		—	—	
Male		1.23	0.76, 1.93	0.4	1.44	0.87, 2.32	0.14
Age (years)	1,499	0.98	0.97, 1.00	**0.015**	0.98	0.97, 1.0	**0.010**
Race	1,499						
Non-White		—	—		—	—	
White		1.32	0.89, 1.94	0.2	0.98	0.64, 1.53	>0.9
Ethnicity	1,499						
Hispanic or Latino		—	—		—	—	
Not Hispanic or Latino		1.16	0.69, 2.04	0.6	1.10	0.63, 2.02	0.7
Smoking	1,499	1.08	0.74, 1.60	0.7	1.44	0.95, 2.19	0.087
Alcohol Use Disorder	1,499	0.43	0.17, 0.92	**0.050**	0.39	0.15, 0.85	**0.031**
Obesity	1,499	1.21	0.79, 1.90	0.4	1.44	0.92, 2.33	0.12
T2DM	1,499	0.68	0.45, 1.02	0.067	0.79	0.50, 1.23	0.3
Medicaid Insurance	1,499	0.63	0.41, 0.94	**0.026**	0.58	0.38, 0.90	**0.015**
Community Deprivation Index	1,499	0.01	0.00, 0.30	**0.008**	0.02	0.00, 0.58	**0.025**

[1] OR = Odds Ratio, CI = Confidence Interval

3000172 - What's #Trending? Social Media in Hidradenitis Suppurativa: A Scoping Review

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Background: Hidradenitis suppurativa (HS) is a chronic skin condition characterized by inflammatory nodules, abscess formation, and sinus drainage often in intertriginous regions. Likely because of the stigmatizing location of lesions and the average 10-year delay in diagnosis, many patients utilize social media to connect with others, learn about the condition, and seek treatment alternatives.

Objective: This scoping review explores trends and knowledge about HS in social media as reported in the literature.

Method: This review followed the PRISMA framework and defined social media as: "any major online platform where users can produce and interact with content generated by other users, as well as have intra-user interactions." Search strategies were conducted in PubMed, Scopus and Google Scholar, with the aid of librarians and library resources. Two reviewers screened titles and abstracts and full text. One reviewer resolved conflicts. Literature published after 2008 that met the definition of social media and focused on HS were included. Data was extracted and summarized all relevant methods and key findings.

Results: Among the 23 articles that met the inclusion criteria, 91% [21/23] were quantitative analyses and 9% [2/23] were qualitative analyses. Facebook (39% [9/23]) was the most studied platform. The most common thematic analysis was user and content creator characteristics and demographics (70% [16/23]). Other analyses included: social and emotional support and the impact of the disease (48% [11/23]); disease management strategies and alternative therapies (48% [11/23]); quality of content (30% [7/23]); and one study describing results of a communication campaign (4% [1/23]). Most studies (74% [17/23]) had multiple foci.

Discussion: Social media is a commonly-utilized tool for HS patients that serves many purposes and could represent a potential gap from a patient support and treatment perspective. Reputable healthcare organizations and providers could develop social media strategies to better address medical concerns. Future research is needed to pilot potential strategies.

3000173 - A Comparative Analysis of Hidradenitis Suppurativa and Acne Inversa Webpages: Same Condition, Different Readability

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Background: The American Medical Association recommends patient-facing resources not exceed a sixth-grade reading level.

Objective: To evaluate the readability of online content for patients with HS and its association with the search term used, publishing organization, and Google ranking.

Method: In June 2023, two searches were conducted for "hidradenitis suppurativa" (HS) and "acne inversa" (AI). Inclusion criteria were webpages intended for HS patients. Exclusion criteria were Google Ads, paid- or restricted-access, exclusively advertisement-based, scientific publication, encyclopedic, or clinician-focused pages. The texts of the first 50 results for each search term were compiled and analyzed using the Readability Formulas platform (www.readabilityformulas.com).

Results: 87 distinct webpages were reviewed across the two searches, of which 48 were included for analysis. The surveyed results were of moderate-to-difficult readability, with mean±SD Flesch Reading Ease of 48.3±13.1 (HS, median 47.7) and 40.7±15.2 (AI, median 41); mean±SD Readability Consensuses of grade 10.5±2.1 (HS, median 11) and grade 11.5±2.7 (AI, median 12). Among AI search results, private webpages were significantly less readable (Readability Consensus) than their academic (mean difference 2.69, 95% CI 0.43-4.95, p = 0.02) and non-profit (mean difference 2.78, 95% C 0.88-4.84, p = 0.005) counterparts. No significant differences were observed among HS search results; there was little correlation between the Google ranking of HS search results and its readability.

Discussion: Our study highlights previously unexplored readability measures in online HS patient-facing resources, most requiring high-school-level reading comprehension. This may hinder access to information about the disease and its management. Moreover, the lower readability of results in the AI versus HS search may indicate that “acne inversa” is more likely to be used in more technical publications. These findings warrant a greater focus on ease of readability in authoring patient resources.

3000174 - Trends of Metformin Use in Patients with Hidradenitis Suppurativa Diagnoses, 2016-2021

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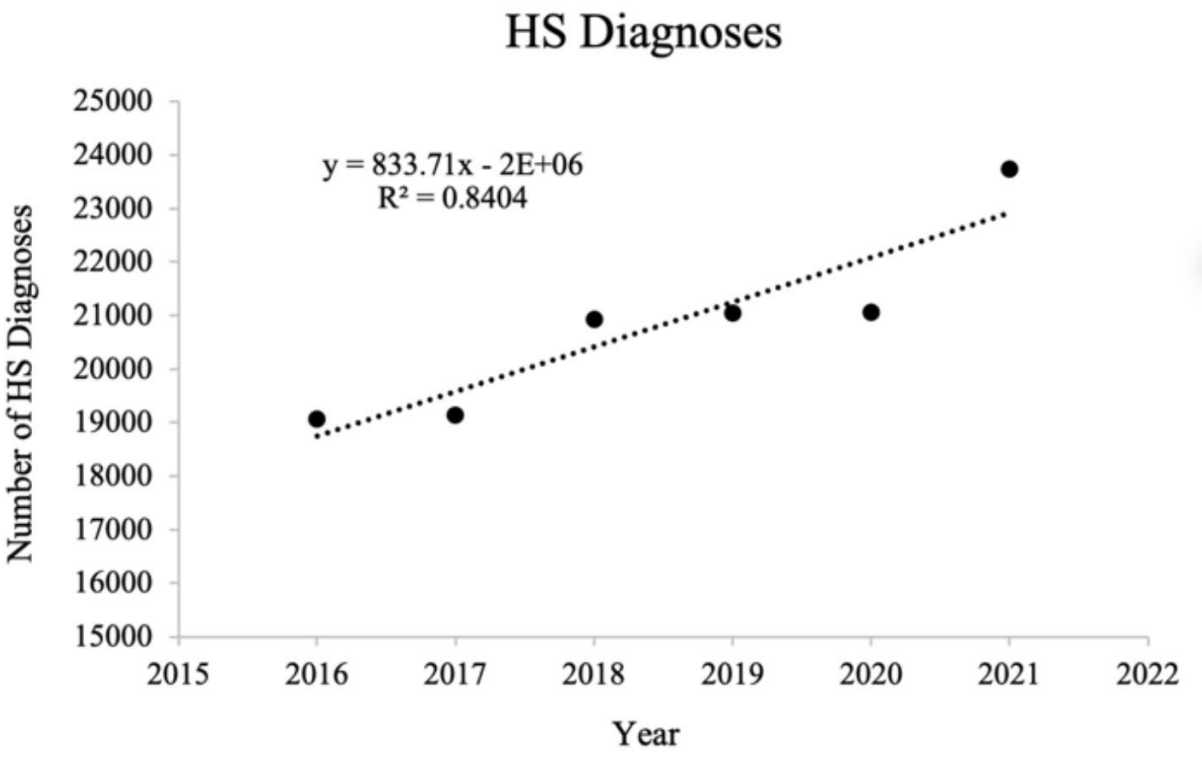
Background: Hidradenitis suppurativa (HS) is a disease associated with insulin resistance. Metformin's anti-inflammatory properties and ability to improve insulin resistance make it a potential HS treatment. There are few studies of recent changes in the utilization of metformin in HS.

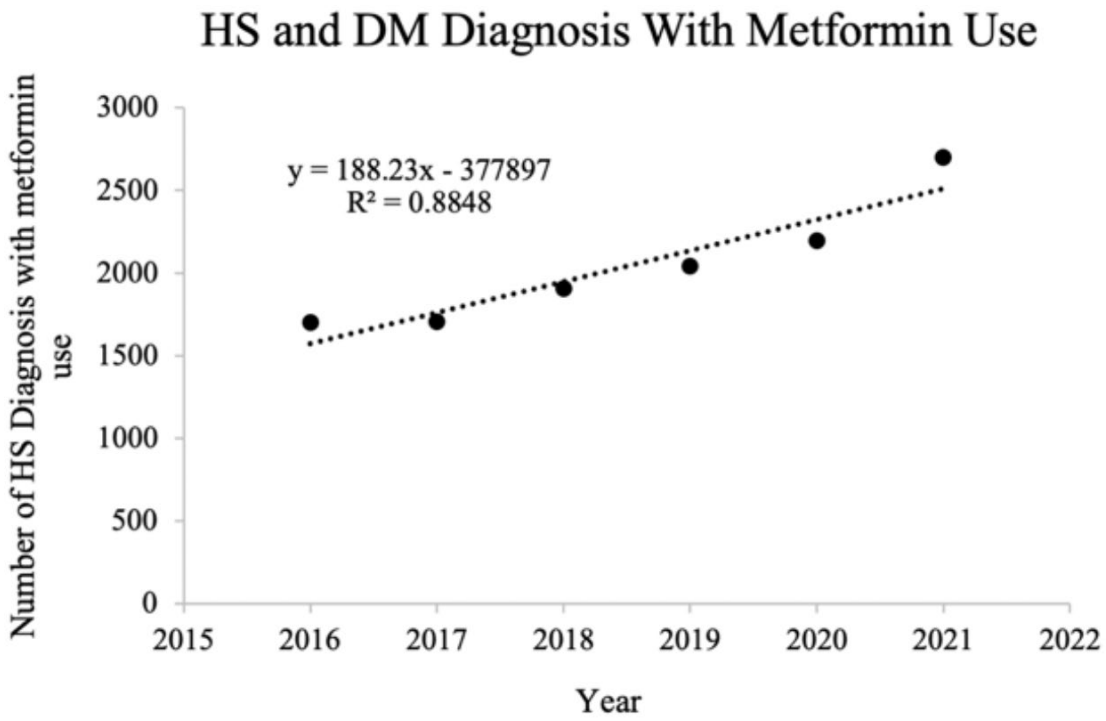
Objective: To analyze metformin prescription trends among HS patients.

Method: Retrospective database analysis was completed with the Truven MarketScan database from 2016-21. International Classification of Diseases codes identified HS and diabetes mellitus (DM) diagnoses, while National Drug Codes identified metformin prescription information.

Results: Between 2016 and 2021, 124,966 patients were diagnosed with HS, with a mean age of 41.1 years. Of those, 12,252 had a corresponding metformin prescription. Over time, there was a statistically significant increase in HS diagnoses ($r=0.94$, $p<0.05$) and metformin prescriptions for patients with comorbid HS and DM ($r=0.92$, $p<0.05$) (Figures 1-2).

Discussion: HS diagnoses and metformin prescriptions increased over the study time period suggesting that more providers have been prescribing metformin for patients with HS. Metformin may also be prescribed more frequently because of its potential therapeutic effects for HS or due to the increasing incidence of both HS and DM.





3000175 - Is ChatGPT a New HS Patient Resource? A Comparison of Online Resource Readability

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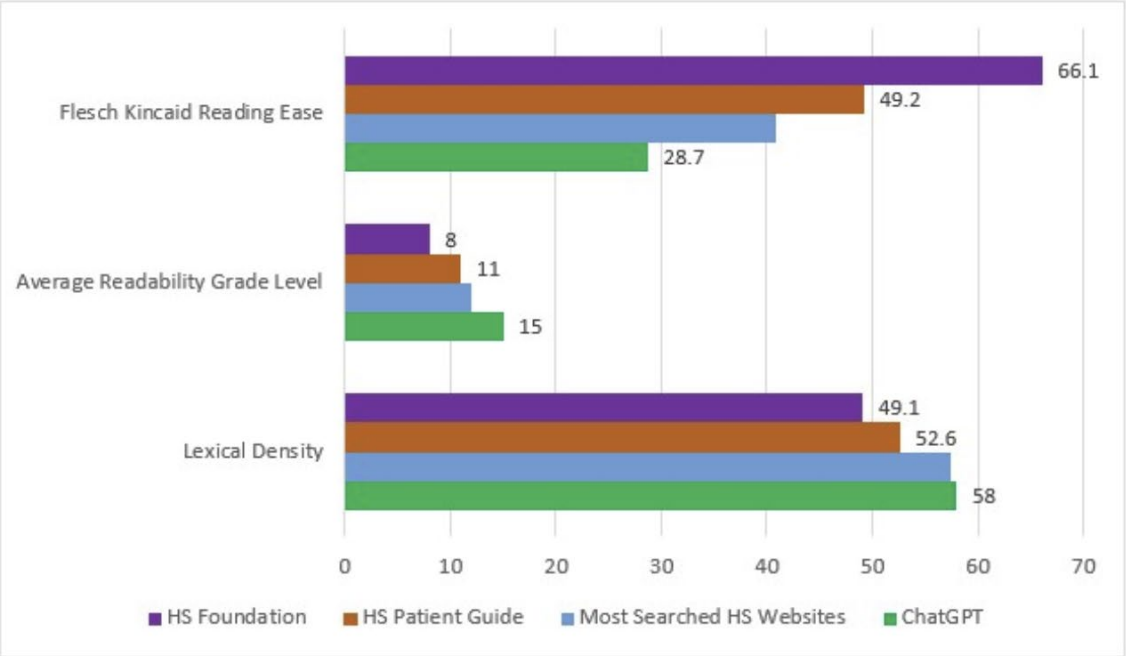
Background: ChatGPT is an artificial intelligence (AI) language model that has emerged as a resource for patient education globally, with over 100 million general users and 1.6 billion monthly visits worldwide. The AMA and NIH recommend patient education materials be written at a sixth-grade and eighth-grade reading level, respectively. However, the readability of HS-related resources from ChatGPT has not yet been studied.

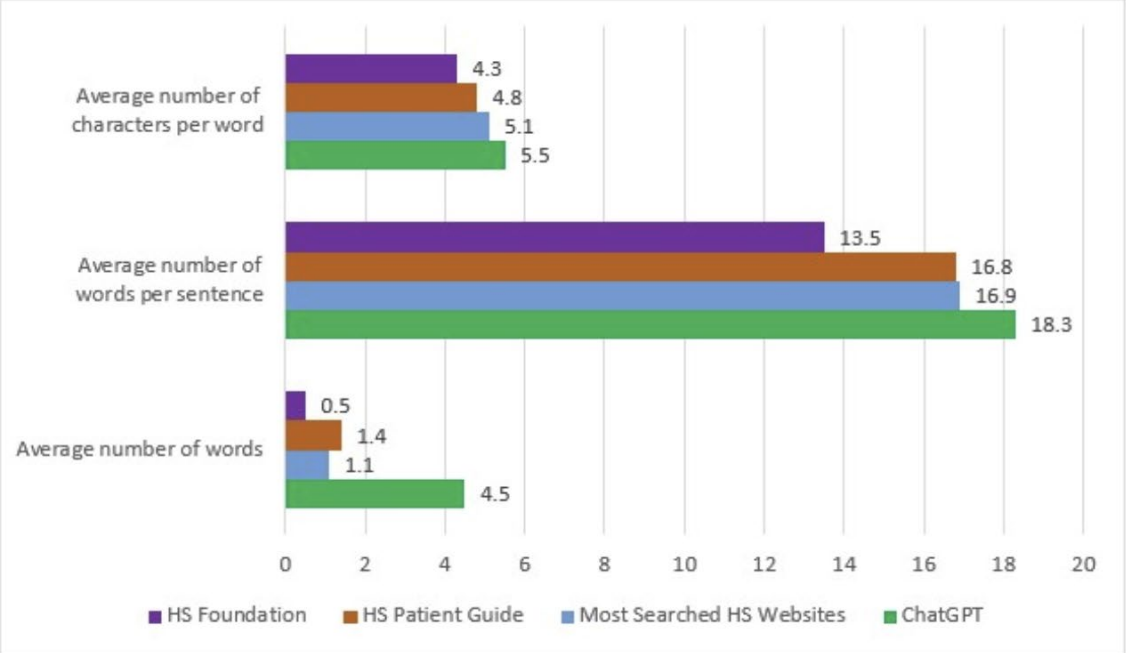
Objective: To compare the readability of ChatGPT-generated responses against HS educational materials from reputable sources and top online webpages.

Method: We compared the readability of FAQ responses from the HS Foundation (HSF), HS Patient Guide (HSPG), ChatGPT, and top webpages from HS-related websites. For the latter, a search was conducted in Google, Yahoo, and Bing using the search term "hidradenitis suppurativa." The top 50 webpages from each search engine were reviewed, of which, 55 met inclusion criteria for further analysis. Readability was determined by average readability grade level (ARGL) and Flesch Kincaid Reading Ease (FKRE) (0 to 100, higher score indicating easier to read). Lexical density, a measure of linguistic complexity, and other text readability metrics were also recorded.

Results: The ARGL of ChatGPT answers to FAQs was 15.0, which was higher than HSF (8.0), HSPG (11.0), and HS-related websites (12.0). The FKRE was notably lower for ChatGPT responses (28.7) than for HSF (66.1), HSPG (49.2), and HS-related websites (40.9). ChatGPT and HS-related websites had a higher lexical density, 58.04 and 57.47 respectively, compared to HSF (49.1) and HSPG (52.6).

Discussion: This study highlights the limitations of using ChatGPT as a patient resource on HS. ChatGPT has a higher reading level and lexical density, and therefore is less readable to the average patient. As AI resources become mainstream, they should aim to enhance the readability, and therefore the accessibility, of health educational content.





	Flesch Kincaid Reading Ease	Average Readability Grade Level	Lexical Density	Average number of words	Average number of words per sentence	Average number of characters per word
HS Foundation	66.1	8.0	49.1	458	13.5	4.3
HS Patient Guide	49.2	11.0	52.6	1348	16.8	4.8
Most Searched HS Websites	40.9	12.0	57.5	1078	16.9	5.1
ChatGPT	28.7	15.0	58.0	4479	18.3	5.5

3000176 - Hidradenitis Suppurativa Gene Expression in Skin of Color Patients from Howard University Dept. of Dermatology

Joseph Francis Tran[1], Nina C. Nwade[1], Chidubem A. V. Okeke[1], Nia E. R. James[1], Ummugulsum Yildiz-Altay[2], Saeed Shakiba[2], A. Kate Rookey[2], Dany Alkurdi[2], Ramona Khanna[3], Ginette A. Okoye[1], Maren Shaw[1], Jillian M. Richmond[2], Angel S. Byrd[1]

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Background: Hidradenitis suppurativa (HS) is a chronic debilitating inflammatory skin condition most prevalent in the US in Black/African American (AA) patients, with worse severity and clinical outcomes. Previous transcriptomic studies have investigated the genetic etiology hypothesized in HS pathophysiology; however, demographic data is unreported or skin of color (SOC) patients are underrepresented. The analysis of SOC biospecimens is crucial for improved diagnosis, prognosis, and treatment optimization.

Objective: To identify the differential gene expression profiles in HS tissue from SOC patients compared to healthy controls.

Method: Lesional HS and healthy tissue were obtained from 8 Black/AA HS patients and 4 Black/AA healthy control subjects, respectively. mRNA was isolated and assayed in a custom Nanostring cartridge containing myeloid V2 panel with probe spike in codes set to human targets. This data was analyzed using nSolver version 4.0 Advanced Analysis.

Results: There was a significant upregulation of multiple genes (CXCL1, CXCL13, S100A8/9) while others were significantly downregulated (FABP4, LPL, FGF10) in HS lesional tissue compared to healthy controls. Advanced cell analysis identified a significant abundance of cytotoxic cells and B cells. Dendritic cells, macrophages, mast cells, neutrophils, T cells, NK cells, and exhausted CD8 cells were also detected.

Discussion: Comparable to previous studies, several genes involved in immunomodulatory responses, including Th17 and neutrophil chemotaxis (CXCL1) as well as those that mediate B cell recruitment (CXCL13) were significantly upregulated in HS SOC patients. Similar to other skin diseases, the upregulation of S100A8/9 is likely due to their roles in immune modulation. Downregulated genes, such as FABP4 and LPL, may contribute to hyperlipidemia and obesity reported in this ethnic group. Further work is warranted to elucidate the differential gene expression profiles in SOC patients compared to White/non-Black/AA counterparts, including the analysis of lesional/perilesional/nonlesional skin from the same patient to better understand the molecular basis of disease disparities and treatment responses.

3000177 - The Value of Race and Ethnicity in Gene Expression Studies in Hidradenitis Suppurativa

Joseph Francis Tran[1], Ramona Khanna[2], Chidubem A. V. Okeke[1], Nia E. R. James[1], Nina C. Nwade[1], Ginette A. Okoye[1], Angel S. Byrd[1]

[1]Department of Dermatology, Howard University College of Medicine, [2]Georgetown University School of Medicine

Background: Hidradenitis suppurativa (HS) is a chronic skin condition characterized by painful nodules and abscesses. Gene expression profiles can vary in HS patients across ethnic groups, leading to differences in disease susceptibility, progression, and treatment response. By analyzing gene expression patterns in diverse racial and ethnic backgrounds, the molecular mechanisms underlying HS can be more precisely understood.

Objective: Identify the representation of race and ethnicity in gene expression studies focused on HS.

Method: A literature review was conducted using the PubMed database. The search was performed for HS studies focused on gene expression published from 2000-2023 using the following parameters: "hidradenitis suppurativa" OR "acne inversa" AND "gene expression." The demographic data was recorded for each study. Review studies were excluded from the data analysis.

Results: The search criteria resulted in 46 publications, 19 were excluded. Of the included 27 studies, 20 contained demographic data while 7 did not. Of the 20 studies that contained demographic data, only 6 noted race or ethnicity of the patient. Of these 6 studies, 2 studies solely included White patients.

Discussion: Our findings highlight that there is a great need for more consistent publishing of race and ethnicity in HS studies focused on gene expression. Currently, only 6 of the included 27 studies accounted for race or ethnicity. Additionally, though HS disproportionately affects Black/African American patients, we found only 4 studies included this population. Gene expression of immune biomarkers in HS lesions varies widely and is a potential target of therapy for HS. By discovering both the differences and similarities in gene expression profiles between HS patients of different race and ethnicities, new therapeutic techniques can be better targeted for individualized therapy. Future studies should consider including race and ethnicity when reporting patient demographics and explore the distinct roles both play in the immunological gene expression of HS patients.

3000178 - Biologic Efficacy and Discontinuation Factors in Tertiary Referral Urban Hidradenitis Suppurativa Clinic

Kathy Lu[1], Albert Young[1], Peter Dimitrion[1], Iltefat Hamzavi[1], Qing-Sheng Mi[1]

[1]Henry Ford Health, Department of Dermatology

Background: Hidradenitis suppurativa (HS) is a chronic inflammatory skin condition often unresponsive to conventional treatments. Biologic therapies targeting TNFα (first-line) and IL-17/IL-23 (second-line) have gained prominence for managing resistant cases. However, a comprehensive understanding of their real-world efficacy and underlying causes for treatment discontinuation remains limited.

Objective: This study aims to evaluate sustained biologic treatment effectiveness and identify pivotal factors contributing to discontinuation in HS management.

Method: Leveraging patient cohorts from a specialized HS clinic, this study conducted an exhaustive examination of medical records from initial dermatological consultation to the latest follow-up, ending on August 3, 2023.

Results: Among 383 patients, 72% engaged in biologic therapies. Predominant biologics included adalimumab (N=143; 37%), infliximab (N=107; 28%), ustekinumab (N=22; 5.8%), secukinumab (N=17; 4.5%), and guselkumab (N=12; 3.1%). The figure illustrates reasons for treatment discontinuation. For those completing ≥3 months with assessable data, discontinuation rates were: adalimumab (44/88; 50%) due to inefficacy, infliximab (4/56; 7.1%), ustekinumab (9/17; 53%), secukinumab (6/7; 86%), and guselkumab (5/7; 71%). "Other" reasons encompassed surgery, cancer diagnosis, latent tuberculosis, COVID-19 concerns, neutralizing antibodies, needle anxiety, and clinical trial participation.

Discussion: This dataset reveals insights into biologic treatment and common discontinuation factors in HS management. Infliximab discontinuation rates were some of the lowest among the TNFα biologics. Findings provide guidance for addressing challenging HS cases with future therapeutic strategies.

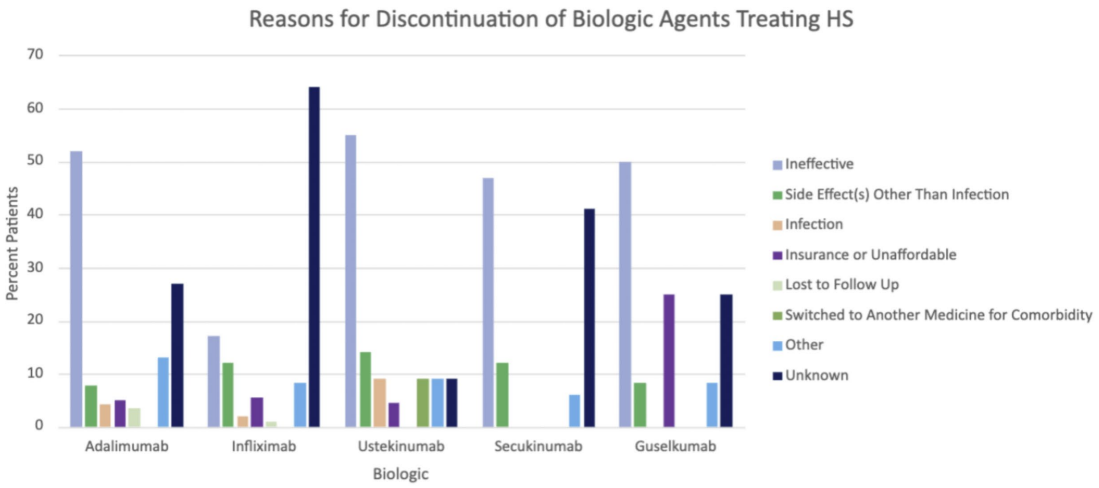

Figure 1. Reasons for Discontinuation of Biologic Agents Treating HS

3000179 - Epigenetic Control of Epithelial Progenitor Cell Signatures in Hidradenitis Suppurativa

Lin Jin[1], Suhail Muzaffar[1], Jasim Khan[1], Mahendra P Kashyap[1], Chander Raman[1], Mohammad Athar[1]

[1]*The University of Alabama at Birmingham*

Background: Hidradenitis suppurativa (HS) is a chronic inflammatory skin disease characterizing a heterogenous histologic phenotype, including epidermal psoriasiform hyperplasia, follicular occlusion and hyperkeratosis, immune cell infiltration, dermal fibrosis, and the development of epithelialized sinus tract. The mechanism of HS pathogenesis is poorly defined.

Objective: In this study, we sought to define transcriptional states in HS lesional epidermis at single-cell resolution and determine whether the basal stem/progenitor cells contribute to HS epithelial cell hyperproliferation and inflammation.

Method: We performed sc-RNA seq to characterize epithelial cells heterogeneity and dual-omics profiling with a limited number of CD49f high cells for chromatin accessibility (ATAC-sequence) and gene expression as well as CUT and RUN sequencing for multiple chromatin modification states in both normal and HS conditions.

Results: As compared to healthy epithelial stem/progenitor cells, in HS we discovered gene signature changes that were centered on the mitotic cell cycle, DNA damage response and repair, as well as cell-cell adhesion and chromatin remodeling. Through reconstructed cell differentiation trajectory and CellChat modeling, we identified an HS-specific keratinocyte population marked by S100A7/8/9 and KRT6 family members, triggering IL1, IL10, and complement inflammatory cascades. These signals, corroborating with HS-specific proinflammatory cytokines and chemokines, contribute to the recruitment of certain immune cells during disease progression. Moreover, we revealed a previously uncharacterized role of S100A8 in regulating the local chromatin environment of target loci in HS keratinocytes. By integrating genomic and epigenomic datasets, we found that genome-wide chromatin rewiring along with the switch of transcription factors mediated HS transcriptional profiles. Importantly, we identified numerous clinically relevant inflammatory enhancers and their coordinated transcription factors in HS basal CD49f high cells. The disruption of the S100A enhancer using CRISPR/Cas9-mediated approach or the pharmacological inhibition of the interferon regulatory transcription factor 3 (IRF3) efficiently reduced the production of HS-associated inflammatory regulators.

Discussion: We report a resource database uncovering the switched epigenetic pattern in epidermal progenitors across healthy and HS skin. Moreover, our results demonstrate that the alteration of

chromatin accessibility highly affects the expression of HS-relevant inflammatory genes. Thus, our study opens possibilities for novel targeted interventions in HS by combing biological therapies with pharmacological agents remodeling the chromatin landscape of inflammatory genes.

3000180 - A Comprehensive Review of the Efficacy of Tetracyclines in Treating Hidradenitis Suppurativa.

Zahidul Islam[1], Michelle Toker[1], Peter Ch'en[1], Ariel Sher[1], Steven R. Cohen[1], Kristina Campton[1]

[1]Albert Einstein College of Medicine and Montefiore Medical Center

Background: The etiology of hidradenitis suppurativa (HS) is multifactorial. Tetracyclines are a class of antibiotics with anti-inflammatory properties that are commonly used as a first-line treatment for HS.

Objective: To comprehensively review the existing literature to analyze various outcomes that measure the response to tetracycline treatment.

Method: The PubMed database was searched for all articles that mentioned tetracyclines and HS. Studies were included if they evaluated the efficacy of tetracycline monotherapy using known quantifiable outcomes such as Dermatology life Quality Index (DLQI), Hidradenitis Suppurativa Clinical Response (HiSCR), International Hidradenitis Suppurativa Severity Score System (IHS4), and Sartorius Hidradenitis Suppurativa Score (HSS). Case reports, reviews, duplicate articles, and studies involving pediatric patients were excluded.

Results: Our search resulted in 83 articles. After screening using the inclusion and exclusion criteria, five studies were included and assessed for information regarding study design, treatment protocols, and outcomes. The most common outcome used to evaluate tetracycline therapy was the DLQI. Summaries of the studies are shown in Table 1. Statistically significant reductions were seen for all outcomes except for the DLQI in Ravn Jørgensen et al. when assessing doxycycline (p=0.273) and IHS4 in Caposiena Caro et al. (p=0.11).

Discussion: These findings highlight the importance of tetracyclines as a first-line treatment and the effectiveness of tetracyclines as a class in treating HS. The development of of newer, third-generation tetracyclines such as omadacycline, tigecycline, and sarecycline warrant new studies to examine the efficacies of these drugs in managing HS.

Study Author	Study Type	Type of Tetracycline Used	Dose	Sample Size (n)	Treatment Duration (Weeks)	# of Patients who achieved HiSCR; [%]	DLQI Baseline	DLQI Follow-up	DLQI p-Value	IHS4 Baseline	IHS4 Follow-up	IHS4 p-value	HSS Baseline	HSS Follow-up	HSS p-value
1) Caposiena Caro et al.	Retrospective	Lymecycline	300 mg daily	26	10	15; [57.7%]	14.5 ± 5.7	7.3 ± 3.8	p < 0.001	10.3 ± 4.6	7.3 ± 3.8	p = 0.11	N/a	N/a	N/a
2a) Kontochristopoulos et al.	Prospective	Modified-Release Doxycycline	40 mg once daily	25	12	16; [64%]	7.8 ± 7.2	3.6 ± 4.5	p = 0.008	6.6 ± 3.2	2.9 ± 2.4	p = 0.002	N/a	N/a	N/a
2b) Kontochristopoulos et al.	Prospective	Regular-Release Doxycycline	100 mg BID	24	12	15; [60%]	8.5 ± 7.2	4.1 ± 5.1	p < 0.001	8.5 ± 7.3	2.8 ± 3.3	p = 0.001	N/a	N/a	N/a
3a) Ravn Jørgensen et al.	Prospective	Tetracycline	500 mg BID	32	23.03	N/a	11.8 ± 7.0	9.1 ± 7.7	p = 0.038	N/a	N/a	N/a	31.09 ± 25.57	21.15 ± 19.65	p = 0.006
3b) Ravn Jørgensen et al.	Prospective	Doxycycline	100 mg BID	31	19.12	N/a	12.4 ± 5.6	10.9 ± 9.0	p = 0.273	N/a	N/a	N/a	26.52 ± 18.08	20.29 ± 19.09	p = 0.007
3c) Ravn Jørgensen et al.	Prospective	Lymecycline	300 mg BID	45	15.64	N/a	13.1 ± 6.9	8.8 ± 6.9	p < 0.0001	N/a	N/a	N/a	22.27 ± 16.53	14.11 ± 15.19	p <0.0001
4) Vural Set al.	Retrospective	Doxycycline	100 mg BID	10	12	6; [60%]	N/a	N/a	N/a	N/a	N/a	N/a	N/a	N/a	N/a
5) van Straalen et al.*	Prospective	Tetracycline, Doxycycline, Minocycline	500 mg BID, 100 mg once daily, 100 mg once daily (Respectively)	180	12	55; [40.1%]	13.3 ± 7.5	10.2 ± 8.2	< 0.001	9.0 ± 5.0-18.5	5.0 ± 2.0-12.0	< 0.001	N/a	N/a	N/a

*Did not measure outcomes of each tetracycline individually

3000181 - Shared Decision-Making Tools for Adolescent Patients Seeking HS-Related Care without an Established Diagnosis

Sydney Dong[1], Carrie Vuong[2], Selena Chen[1], Esosa Fernandes[3], Adriana Richmond[1], Andres Cedeno[1], Daniela Suarez[4], Stephanie Lee[5], Helen Park[5], George Hightower[2]

[1]UCSD School of Medicine, [2]UCSD, Department of Dermatology and Rady Children's Hospital San Diego, [3]University of Maryland, School of Medicine, Preventative Medicine, [4]Harvard University, [5]UCSD, Department of Dermatology

Background: Adolescent patients with hidradenitis suppurativa (HS) are often faced with delays in diagnosis. Even when an appropriate diagnosis is made, it can be challenging for patients, their

families, and clinicians to understand and select treatment options that align with their preferences and needs.

Objective: To design evidence-based shared decision-making tools to employ in clinical encounters for new patients and/or patients who do not yet have an established diagnosis of HS.

Method: Using guiding principles in the Ottawa Decision Support Framework (ODSF) and International Patient Decision Aid Standards (IPDAS), we performed PubMed searches to identify evidence-based approaches to sharing diagnoses of chronic disease, gathering potentially sensitive health data from adolescent patients, and health decision-making in adolescents. The following terms were queried in PubMed— ((((pediatric) OR (adolescent)) AND (shared decision making)) AND (hidradenitis suppurativa)) OR (HS)) AND (patient-centered care)) AND (patient decision aid)). We then applied this framework to develop forms for use at clinic visits for patients who do not yet have an established diagnosis of HS.

Results: These novel shared decision-making tools review both HS diagnostic criteria and options for medical management. They are designed for use by adolescents. In clinic, adolescent patients, with the support of an accompanying family member/guardian, complete 5 sections: 1. Getting the Right Diagnosis, 2. Reviewing Your Past Care, 3. Creating Your Treatment Plan, 4. Understanding Your Past Treatments, and 5. Preferences and Background. It takes an estimated 5 minutes to complete and includes 34 questions. The content of the forms meets 8th grade reading level per the Flesch-Kincaid grade level formula.

Discussion: Approaches that encourage shared health decision-making hold promise. Further study is needed to understand the impact of shared decision-making tools in adolescent HS patient encounters.