

Earlier Diagnosis and Treatment: The Key to Better Outcomes in Hidradenitis Suppurativa

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Introduction

Hidradenitis suppurativa (HS), also known as acne inversa, is a chronic inflammatory skin condition that significantly impacts patients' quality of life. Characterized by painful, recurrent abscesses and nodules, HS affects an estimated 1% of the population in the European Union and United States but remains underdiagnosed and mismanaged.¹

HS disproportionately affects females and individuals aged 18–45, as well as people of color, who display a threefold higher disease prevalence when compared to white patients.² The condition typically develops in areas where skin-to-skin contact occurs, such as the armpits, perianal skin, groin, and under the breasts. It is often associated with obesity, smoking, and having a family history of the disease.

The Burden of HS: Understanding the Disease

Data from dermatologists paints a vivid picture of the HS landscape. Among adult patients, 36% present with mild cases, 42% with moderate cases, and 22% with severe manifestations of the disease. Interestingly, the adolescent population tends to present with milder forms, with 53% classified as mild cases of HS.³

The clinical presentation of HS can vary widely, which contributes to diagnostic challenges. The Hurley staging system is commonly used to classify the severity of HS. Stage I involves single or multiple isolated abscess formations without scarring or sinus tracts. Stage II is characterized by recurrent abscesses with tract formation and scarring but with widely separated lesions. Stage III presents as diffuse or broad involvement, with multiple interconnected tracts and abscesses across the entire area.

These stages underscore the progressive nature of HS and highlight the potential benefits of early intervention. Understanding the staging system is crucial for healthcare providers, as it guides treatment decisions and helps monitor disease progression.

The Impact of Delayed Diagnosis

The journey to an HS diagnosis is often long and fraught with frustration. Many patients endure years of painful symptoms before receiving proper treatment, a delay that stems from several key factors. Misdiagnosis is a significant issue, with HS frequently mistaken for more common conditions such as acne, boils, venereal disease, or folliculitis. This confusion is compounded by limited awareness among healthcare providers, including primary care physicians and emergency room doctors, who may have little familiarity with HS.

Patient hesitation also plays a significant role in delayed diagnosis. The embarrassing nature of HS symptoms, combined with a lack of public awareness about the condition, often prevents individuals from seeking early medical attention. Many patients report feeling shame or embarrassment about their symptoms, leading them to delay seeking medical help or to attempt self-treatment, which can exacerbate the condition.

The consequences of delayed diagnosis are severe and multifaceted. From a patient perspective, prolonged suffering is perhaps the most immediate and apparent impact.² As the disease progresses unchecked, patients face an increased risk of complications, such as draining tracts, scarring, and limitation of motion, which can be physically and emotionally devastating. From a healthcare provider perspective, multiple comorbidities exist, including metabolic syndrome, increased atherosclerotic disease, depression, diabetes, and polycystic ovary syndrome (PCOS). The efficacy of treatments tends to decrease as the disease advances, making management more challenging and often less successful. Furthermore, delayed diagnosis often leads to higher costs and places a significant financial burden on both patients and the healthcare system.

Current Treatment Landscape

The management of HS has evolved significantly in recent years, moving from purely symptomatic treatments to more targeted therapies. The standard of care for HS encompasses a range of approaches tailored to the severity of the disease and individual patient factors.

For mild cases, topical treatments are often the first line of defense. These may include topical antibiotics like clindamycin, which can help manage bacterial colonization and reduce inflammation. Topical resorcinol, a keratolytic agent, has shown promise in reducing pain and the duration of flares in some patients.

As the disease progresses or in cases that don't respond to topical treatments, systemic therapies come into play. Oral antibiotics, particularly tetracyclines, are commonly used for their anti-inflammatory properties as well as their antimicrobial effects. Hormonal therapies, such as oral contraceptives or spironolactone, may be beneficial for some female patients, especially those who experience flares related to their menstrual cycle.

For more severe or recalcitrant cases, immunomodulatory drugs have become increasingly important. Systemic retinoids, like acitretin or isotretinoin, can help reduce inflammation and

prevent new lesion formation in some patients. However, immunomodulatory treatments often do not fully alleviate the symptoms of patients with moderate to severe cases, underscoring the unmet need for more efficacious advanced therapies.

The Role of Biologic Therapies

The HS treatment landscape has been transformed by the introduction of biologic therapies. Two such medications have received US Food and Drug Administration (FDA) and European Medicines Agency (EMA) approval for HS treatment. Since 2018, eight biosimilars have reached the market, five of which are approved for the treatment of HS. The first to receive approval was adalimumab (Humira), a tumor necrosis factor (TNF) inhibitor approved in December 2002. The second was secukinumab (Cosentyx), an interleukin-17 (IL-17) inhibitor approved in October 2023. These biologics have shown significant promise in managing moderate to severe HS, offering hope to patients who have not responded to conventional treatments.

The utilization of these biologics varies based on disease severity. Adalimumab has become a mainstay of treatment for severe HS, with 96% of dermatologists using it for severe adult cases. Its use extends to moderate cases as well, with 85% of dermatologists prescribing it in these situations. Interestingly, 16% even use it for mild cases, suggesting a trend toward earlier intervention with biologics.³

Secukinumab, being newer to the market, is still establishing its place in the treatment algorithm, but dermatologists' familiarity is increasing rapidly. As of August 2024, approximately 89% of dermatologists were using secukinumab to treat HS, up from 49% in December 2023; additionally, these dermatologists were initiating new patients on the drug at a mean monthly rate of 1.3 patients, indicating favorable momentum.⁴

When comparing healthcare providers' satisfaction regarding the two biologics, secukinumab often edges out adalimumab in dermatologists' perceptions. For overall efficacy, 69% of dermatologists favor secukinumab, while 60% believe it offers better sustained efficacy. In terms of overall safety, 59% give secukinumab the advantage.⁴

However, it's important to note that clinical trial data suggests that the efficacy of adalimumab and secukinumab may be more comparable than these perceptions indicate. This disconnect highlights the need for more head-to-head studies and real-world evidence to guide treatment decisions. The discrepancy in perception may be influenced by factors such as marketing, personal experience, and the novelty of secukinumab in the HS treatment landscape.

Infliximab, another TNF inhibitor, has emerged as an important off-label treatment option for HS, particularly in cases that have not responded adequately to other therapies. While not FDA-approved specifically for HS, clinical experience and observational studies have shown promising results. A systematic review of infliximab use in HS demonstrated clinical response rates ranging from 58% to 83%, with some patients achieving complete remission.⁵

Despite their efficacy, biologics face several barriers to widespread use. Patient reluctance is a significant factor, with 40% of patients hesitant about using secukinumab and 44% about adalimumab. This reluctance often stems from concerns about side effects, the need for injections, and the long-term nature of the treatment. Reimbursement hassles in the United States

also pose a substantial challenge, affecting 39% of potential secukinumab users. Out-of-pocket costs are another major barrier, with 45% of patients citing this as an issue for secukinumab use.³⁻⁴

The Case for Earlier Advanced Systemic Intervention

Traditionally, biologic therapies have been reserved for severe cases of HS and later-stage treatment. However, emerging data suggests that treating less severe patients or earlier intervention with biologics may lead to better patient outcomes. Moreover, physician data tells a compelling story about the relationship between disease severity and treatment outcomes.

Among mild HS patients, 42% are well-managed. However, this percentage drops dramatically for more advanced cases, with only 13% of moderate and 11% of severe cases considered well-managed.³ This stark contrast in patient management is further illustrated by the progression of the disease. These figures paint a clear picture: less severe patients typically respond better to therapy; therefore, earlier treatment could lead to improved treatment outcomes.

This shift in advanced systemic intervention coming earlier in the treatment algorithm is reflected in current prescribing patterns. Approximately 36% of patients starting secukinumab are biologic-naive prior to initiation.⁴ The severity distribution of patients starting secukinumab as of August 2024 illustrates this trend, 52% with severe HS, 44% with moderate HS, and 4% with mild HS.⁴

This willingness to use biologics in moderate cases aligns with two emerging observations: first, patients with mild disease severity tend to have better treatment responses, and second, practitioners are turning to biologics to treat patients with less severe chronic presentations.⁴ Both observations appear to support the case for earlier biologic intervention.

The trend toward earlier biologic use is further supported by data on how dermatologists can initiate biologic-naive patients on secukinumab. Good insurance coverage is cited by 37% of dermatologists as a key factor, with commercially insured patients typically having better access than patients insured by public payers. In 14% of cases, secukinumab is used when adalimumab is contraindicated due to comorbidities. Samples (12%) and patient assistance programs (9%) also play a role in facilitating early biologic use.³

This data suggests that while barriers exist, dermatologists are finding ways to access these advanced therapies for less severe patients who are earlier in their treatment journey. The potential benefits of this approach are significant. Early intervention with biologics may prevent disease progression, reduce the risk of complications, and improve long-term patient health outcomes. It may also lead to a better quality of life for patients, allowing them to achieve symptom control before the disease significantly impacts their personal and professional lives.

Future Directions in HS Management

Despite the advancements in HS treatment, significant unmet needs persist. Ninety-two percent of dermatologists believe there is an unmet need for severe HS cases, while 72% believe the unmet need exists for moderate cases. These figures underscore the urgency for continued innovation in HS therapies.³

Dermatologists have clear priorities for future treatments. Long-term safety tops the list, with 62% of dermatologists citing it as a key attribute. This emphasis on safety reflects the chronic nature of

HS and the need for treatments that can be used over extended periods without significant side effects. Sustained efficacy is another crucial factor mentioned by 61% of dermatologists. Given the recurrent nature of HS, treatments that can provide long-lasting symptom control are highly valued. The ability to decrease total abscess and inflammatory nodule counts is the third most desired attribute, cited by 42% of dermatologists. This focus on specific symptom improvement highlights the need for treatments that can address the most bothersome aspects of HS for patients.³

The HS treatment landscape continues to evolve rapidly, with several promising therapies in late-stage development. Bimekizumab, a monoclonal antibody that selectively inhibits both IL-17A and IL-17F, has shown encouraging results in Phase 3 clinical trials for HS.⁶ The dual inhibition mechanism may offer advantages over current single cytokine-targeted therapies, and an FDA approval decision is anticipated by the end of 2024.

However, the path to new treatments is not without setbacks. Recent trials investigating IL-23 inhibition in HS failed to meet their primary endpoints, highlighting the complexity of the disease's inflammatory pathways. This outcome has provided valuable insights into disease pathogenesis and helped refine the focus of future therapeutic development.

Janus kinase (JAK) inhibitors represent another promising avenue of investigation, with several compounds currently in clinical trials for HS. These small molecule inhibitors target multiple inflammatory pathways simultaneously and offer the potential advantage of oral administration. Early-phase trials have shown promising results in terms of efficacy and safety.

Market Dynamics and Growth Projections

The HS market is experiencing remarkable growth, reflecting both increased disease awareness and expanding treatment options. Komodo Health Inc. estimates the diagnosed and treated adult patient population with HS in the United States at 2.2 million, based on an eight-year observation window.⁹ Each year, an average of 260,000 new adult patients are diagnosed and treated, indicating a significant rate of growth in disease awareness.⁷

Looking ahead, projections suggest that by 2035, the number of diagnosed and treated adult patients with HS could surpass five million.⁷ This dramatic increase is attributed to several factors, including growing disease awareness, improved diagnostic capabilities, and the availability of more effective treatments.

The introduction of new therapies, particularly biologics, has played a significant role in this market expansion. The launch of secukinumab, for example, has contributed to a 27% year-over-year increase in biologic-treated patients in the last quarter alone.⁷ This growth suggests that new treatment options are not just capturing market share from existing therapies but are also expanding the pool of treated patients.

Strategies for Improving HS Management

To address the challenges in HS management and capitalize on the promising trends, a multifaceted approach is necessary. This approach should encompass several key strategies:

1. **Enhanced education:** Increasing awareness of the symptoms of HS and the importance of early treatment among both patients and healthcare providers is crucial. This could involve

public health campaigns, leveraging social media to reach younger demographics, and improving diagnostic skills and knowledge of current treatment options among primary care physicians.

2. **Multidisciplinary specialists:** Effective HS management often requires collaboration between various specialties. This includes dermatologists, primary care physicians, gynecologists, and specialists in pain management, mental health, and emergency room physicians.
3. **Patient-centered care:** Addressing patient concerns about biologic therapies through education and support programs is essential for improving treatment adherence and outcomes. Providing comprehensive support, including guidance on lifestyle modifications and access to mental health resources, can help patients better manage their condition.
4. **Earlier intervention:** Considering biologic therapies earlier in the treatment algorithm, particularly for moderate HS patients, may lead to better long-term outcomes. Developing clear guidelines for when to escalate treatment to biologics could help standardize care and ensure patients receive optimal treatment at the right time.
5. **Continued research:** Investing in studies to further understand the pathogenesis of HS and identify new therapeutic targets is crucial for developing more effective and personalized treatment options. Additional head-to-head studies would also prove beneficial.
6. **Improved access to treatment:** Working with payers to improve coverage for biologic therapies, expanding patient assistance programs, and streamlining prior authorization processes could help reduce barriers to treatment access.

Conclusion

The management of hidradenitis suppurativa stands at a critical juncture. While challenges persist, the data presented clearly demonstrates the benefits of early diagnosis and treatment. By leveraging advanced therapies earlier in the disease course, addressing barriers to care, and focusing on patient education, we can significantly improve outcomes for individuals living with HS.

As the HS landscape continues to evolve, with promising new treatments on the horizon, the medical community must remain committed to early intervention and personalized care. By implementing the strategies outlined, we can work toward a future where HS is diagnosed promptly, treated effectively, and managed comprehensively. This can dramatically improve the quality of life for millions affected by this challenging condition.

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