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Treatments for hidradenitis suppurativa

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Abstract Hidradenitis suppurativa (HS) is not easily treated. Although not uncommon, HS is often misdiagnosed outside specialized clinics and inappropriately treated as a simple boil or abscess. In recent years, guidelines have been developed on the basis of expert opinion and the available literature.

A multifaceted approach is necessary as HS lesions include both inflammation (amenable to medical treatment) as well as fibrosis (amenable to surgery only). The recommended antiinflammatory therapies encompass both antimicrobials and regular anti-inflammatory drugs. We have, therefore, reviewed treatments with the following agents: clindamycin, tetracycline, rifampicin, ertapenem, dapsone, triamcinolone, infliximab, adalimumab, and anakinra. The development of new medical treatments, however, is an ongoing effort, and important new data have been presented since the publication of the guideline.

The current approach to the management of fibrotic lesions is surgery. It is important, as manifest fibrosis is generally not susceptible to medical treatment. Here minor excision, carbon dioxide-laser, and major surgery are discussed, and current evidence supporting their use is provided.

A comprehensive three-pronged approach with adjuvant therapy, medical therapy, and surgery is recommended. The importance of adjuvant therapy, that is, pain management, wound care, and attention, is stressed. Adjuvant therapy not only plays a major role in patients' perception of a successful treatment but also is of practical importance to their coping and self-management.

HS presents a significant unmet need, and this review provides a mechanistic update on the current real-world therapeutic option for the management of this distressing disease.

Introduction

Treatment of hidradentitis suppurativa (HS) is often a challenge, and although guidelines exist, the literature remains fragmented.[1,2] This reflects the evolving understanding of the pathogenesis of this disease and opens the possibility for rapid empirical evolution of new treatments. The resurgent academic interest in HS is likely to rectify this over time, but currently only a few treatments meet the methodologic standard, which is the randomized controlled trial, with many therapeutic recommendations being supported by only lower-level evidence grades.

Treatment of HS is driven by an unmet need for an effective outcome.[3] The obvious pathology of the disease, which involves chronic or recurrent inflamed lesions with pain and suppuration, leaving scars located in the intertriginous areas, is frequently misdiagnosed in spite of the existence of published diagnostic criteria that are simple and easy to understand.[4] A global study has indicated that the average diagnostic delay is 7 years.[5] The retrospective study included

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patients who were being treated in special-interest centers. It may be hypothesized that the majority of patients, who do not reach such specialized centers, may experience even longer delays. The evidence of significant delays is further supported by the discrepancy in reported prevalence rates between self-reports of disease and registry studies.[6] The prevalence rates of HS based on self-reports are generally around 1% to 2%, whereas hospital registries suggest prevalence rates of only 0.05%. Objective examination of a sample of young adults undergoing screening for sexually transmitted infections suggests that the prevalence of milder forms of HS is high.[7]

HS causes significant morbidity in patients.[8] In addition to the pain and suppuration caused by HS, associated comorbidities and complications also occur. These include physical diseases, such as obesity, metabolic syndrome, arthritis, hyperthyroidism, malignancies,[9] and cholecystitis.[10–21] HS may also be associated with psychologic problems, including depression, tobacco dependency, and social stigmatization,[22–29] which all add significantly to the burden of disease and increase the need for treatment.

Clinical challenge

The complex multimorbidity of patients with HS poses challenges, which are not easily overcome today. These patients have a significant burden of disease, in terms of both skin disease and comorbidities. In contrast to most other dermatologic diseases, HS is a scarring disease, which means that even if the acute component is well controlled with therapy, the disease leaves indelible consequences. In spite of significant progress being made over the last 10 years, no simple uniformly effective treatment is available. The neglect that many of these patients have experienced previously means that they are an emotionally fragile group of people who require a broad, empathic approach to achieve optimal treatment results.

Approach

The complex challenge of HS is best met with a holistic approach, as outlined by the current guideline of the European Academy of Dermatology and Venereology and the European Dermatology Forum (and shown in Figure 1).[2]

In the objective assessment of HS, two main factors affect the choice of treatment: inflammation and fibrosis. Unfortunately, they are rarely responsive to a single treatment modality. All patients should be offered inclusive treatment as well as adjuvant supportive treatments to alleviate the impact of the disease on their lives.

Inflammation

HS is a disseminated disease that also involves the clinically unaffected skin of the axilla, groin, and perineum.[3,30] Primary lesions consist of nodules, which may progress to abscesses and tunnels (sinus tracts).[31] The apparently normal skin of patients with HS contains hair follicles with a perifollicular infiltrate of lymphocytes visible in histopathology,[19,32] and subclinical lesions can be visualized with high-frequency ultrasonography.[33–38] Although approximately one-third of patients experience remission of their disease over time, many experience disease that progresses over years, strongly suggesting that inflammation precedes clinical change.[24] Inflammation is the main presentation of active disease, that is, heat, pain, erythema, loss of function (restrictions of movement), and suppuration. Symptomatic treatment aimed at managing inflammation is, therefore, vital, but the problem is that the underlying mechanism is still being elucidated. Currently, the two approaches that are being pursued and described in the guidelines are the antimicrobial and anti-inflammatory approaches.

Antimicrobial therapy

The antimicrobial approach is based on the notion that bacteria cause the disease. This impression is mainly supported by clinical findings and patients' response to macrolide antibiotics; yet, routine culture of swabs often fails to provide evidence of infection, and when bacteria are identified, they often comprise normal flora.[39–41] In more complex bacterial sampling, a wide range of bacteria may be isolated from lesions, suggesting that the disease is associated with changes in the microbiome rather than with individual pathogens.

A small (n = 27) randomized controlled trial (RCT) has suggested that treatment with topical clindamycin 0.1% twice

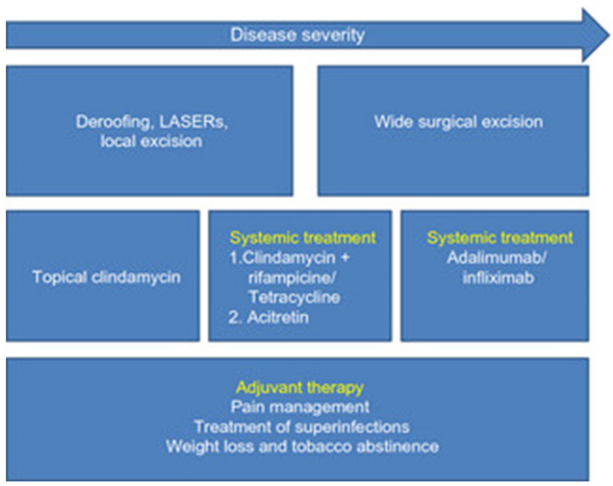

Fig. 1 European S1 guideline for the treatment of hidradenitis suppurativa/acne inversa. Reprinted from Zouboulis CC, Desai N, Emtestam L, et al. European S1 guideline for the treatment of hidradenitis suppurativa/acne inversa. *J Eur Acad Dermatol Venereol*, in agreement with Wiley Online Library policy. © 2015 European Academy of Dermatology and Venereology, reprinted by permission of John Wiley & Sons, Inc.