BRIEF ARTICLE

Coalescing Tender Nodules on the Anterior Chest: An Atypical Presentation of Hidradenitis Suppurativa

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ABSTRACT

Hidradenitis suppurativa (HS) is an inflammatory skin condition that is characterized by inflamed nodules and abscesses that can form sinus tracts under the skin, typically in skin fold areas, that are tender and drain pus. Efficient diagnosis and early intervention are critical for this condition, as initiating treatment can keep the lesions under control and prevent worsening of nodules that can cause significant discomfort and permanent scarring. Here, we present a case of an unusual presentation of hidradenitis suppurativa in a 41-year-old male who presented to the emergency department with a chief complaint of a tender, purulent anterior chest cutaneous mass, which pathology later confirmed was consistent with an HS lesion. While HS typically occurs in regions with skin folds, this case illuminates an atypical presenting area – the anterior chest wall. Thus, clinicians should keep HS on the differential for such lesions, as the location of the affected area should not rule in or out HS as a diagnosis.

INTRODUCTION

Hidradenitis suppurativa (HS), also known as acne inversa, is an inflammatory skin condition that is characterized by inflamed nodules and abscesses that can form tender sinus tracts under the skin.[1] The commonly affected areas are the skin folds.[2] HS is part of a group of conditions characterized by follicular occlusion. Given the chronic and painful nature of HS, the quality of life of affected patients can be significantly altered.[1] Thus, it is important for clinicians to be able to quickly recognize and accurately diagnose HS, as early intervention can treat the follicular occlusion prior to the development of significant inflammation and painful nodules that can cause permanent scarring. Here, we present a case of an unusual presentation of hidradenitis suppurativa in a 41-year-old male.

CASE REPORT

The patient is a 41-year-old male who presented to the emergency department with difficulty breathing following psilocybin use and complained of a draining, purulent anterior chest cutaneous mass. The patient's past medical history was significant for dissecting cellulitis of scalp (**Figure 1**) for over seven years with frequent episodes of redness and swelling of the skin in various locations. He first noticed the anterior chest

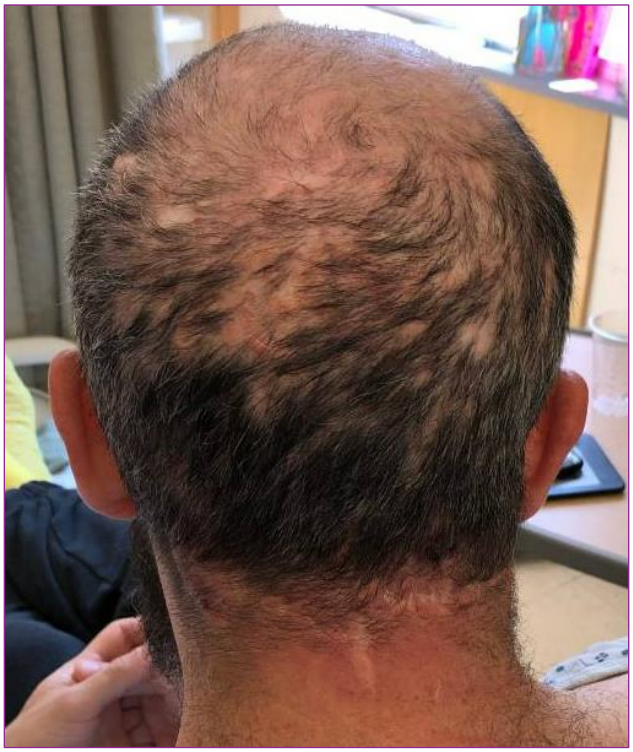

Figure 1. Posterior scalp with evidence of prior flares of dissecting cellulitis of the scalp.

skin changes two weeks prior to his initial presentation and described increasing pain, fluctuance, and malodourous drainage. He also endorsed low grade, subjective fevers, night sweats, and joint pains in ankles, hips, and long bones, for months to years.

Physical exam revealed multiple coalescing erythematous to violaceous tender nodules, tracts, and pustules with surrounding erythema and edema on the sternal area with malodorous, purulent discharge. Most lesions ranged in size from 3-8mm and there was a 10cm x 20cm mass, suggesting coalescence. A black ink tattoo was present on the entire medial chest area and bilateral clavicular area (**Figures 2-3**). Blood work was significant for leukocytosis (13.6 cells/mL) and neutrophilia (12.3 cells/mL). A CT scan revealed a large, heterogeneously enhancing subcutaneous cystic mass in the anterior chest wall measuring 4cm x 7cm x 20cm, as well as soft tissue thickening and fat stranding in the right side of the chest wall measuring 8.1cm x 2.5cm x 5.7cm without evidence of intrathoracic involvement or abscess.

A punch biopsy was consistent with a diagnosis of hidradenitis suppurativa. The patient was treated with antibiotics and underwent a surgical incision and drainage procedure to open the sinus tracts (**Figure 4**). In addition to antibiotics, he was placed on prednisone 50 mg for two days just prior to the incision and drainage procedure. The procedure revealed a deep-seated abscess at the level of the deep fascia, which drained copious purulent material and resulted in marked clinical improvement. Culture of the material grew Streptococcus agalactiae on four separate occasions. After the procedure, a prednisone taper was initiated by 10 mg every two days. The patient was discharged on cephalexin 500 mg 4 times daily as a bridge to adalimumab during the prior authorization period.

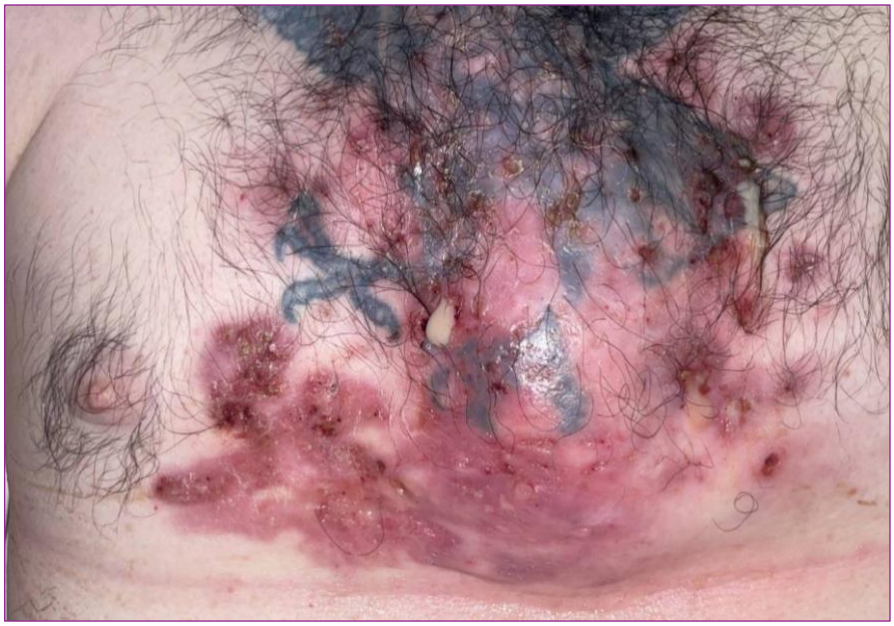

Figure 2. Coalescing erythematous to violaceous tender nodules, tracts, and pustules with surrounding erythema and edema on the sternal area.

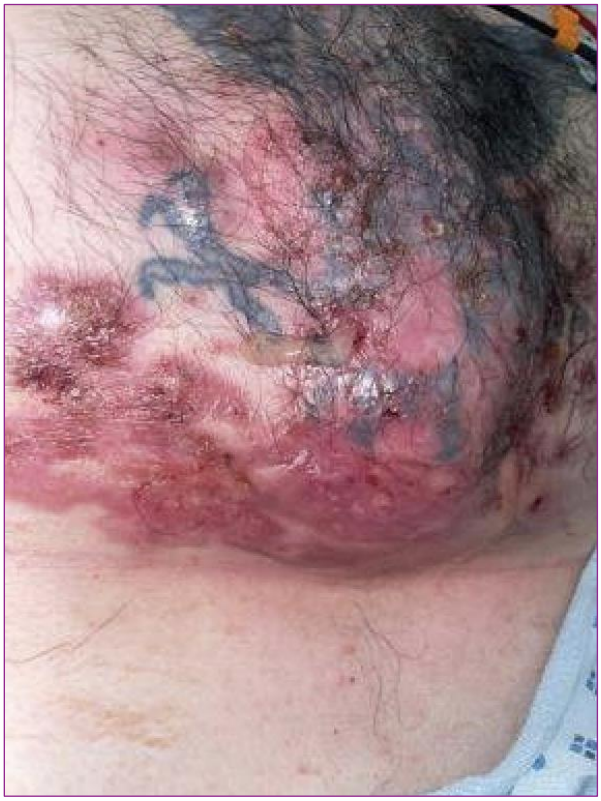

Figure 3. Coalescing erythematous to violaceous tender nodules, tracts, and pustules with surrounding erythema and edema on the sternal area with visible draining purulent discharge.

Approximately three weeks later, he started adalimumab 40mg weekly and reported improvement and less drainage. Approximately one month later, he noted significant improvement yet some continued drainage, leading to the addition of doxycycline 100 mg twice daily and an intralesional triamcinolone injection. Approximately one month later, he received another intralesional triamcinolone injection. Two weeks later, he returned with an acute flare, received another intralesional triamcinolone injection, continued the antibiotics and adalimumab, and underwent a mini de-roofing procedure. About two months later, due to drainage, he underwent another de-roofing procedure. Three weeks later, an abscess required an incision and drainage procedure, followed by another triamcinolone injection. Despite continuing antibiotics and adalimumab, the improvement in the abscess was minimal, so metronidazole 500 mg every eight hours for 28 days was initiated. After this course, he noted significant improvement except for one draining area (**Figure 5**), all antibiotics were discontinued, and he continued adalimumab 40 mg weekly.

DISCUSSION

In 2009, HS was defined by the Hidradenitis Suppurativa Foundation as, “a chronic, inflammatory, recurrent, debilitating, skin follicular disease that usually presents after puberty with painful deep seated, inflamed lesions in the apocrine gland-bearing area of the body, most commonly the axillary, inguinal, and anogenital regions.” HS has been reported to have a global prevalence of approximately 1%, however, this may be an underreported condition due to the prevalence of milder forms, as well as patients feeling discouraged or embarrassed and not seeking treatment.[2]

HS often presents with solitary, painful nodules that can be accompanied by periods of flares in inflammation. The nodules are a round shape, situated deep in the hypodermis, very tender, and can evolve into abscesses with bacterial colonization that drain purulent fluid to the skin’s surface via sinus tracts, which can persist for months to years unless treated. Patients may experience prodromal symptoms such as burning or stinging. A hormonal component may be involved, as androgens may increase the activity of sebaceous glands, which leads to oil production that can contribute to follicular occlusion. Eventual healing can result in hypertrophic scaring.[2] Beyond the physical aspects, HS is part of a follicular occlusion tetrad of conditions, including HS, acne conglobate, dissecting cellulitis of the scalp, and pilonidal cysts.[3]

The described case is unique because the center of the chest is not a typically affected area for HS, as there are no skin folds.[4] Some cases reports exist describing HS affecting the penis and urethral areas, ankles and lower lip, scrotum, as well as posterior neck and occiput.[5-9] Similar to these locations, the chest is an area rarely affected by HS, so it is important to present this case report so that clinicians keep HS on the differential for a nodular lesion on the anterior chest and can see how it was successfully treated in other patients affected in this area.

There are various treatment options for HS depending on the severity and the patient’s goals and preferences. Topical antibiotics may be used, although their efficacy is rather poor due to the depth of the lesions. Oral antibiotics may calm inflammation and tenderness. Injection of intralesional steroids cause rapid involution of the lesion, and this treatment was helpful in the described patient. High doses of systemic steroids may

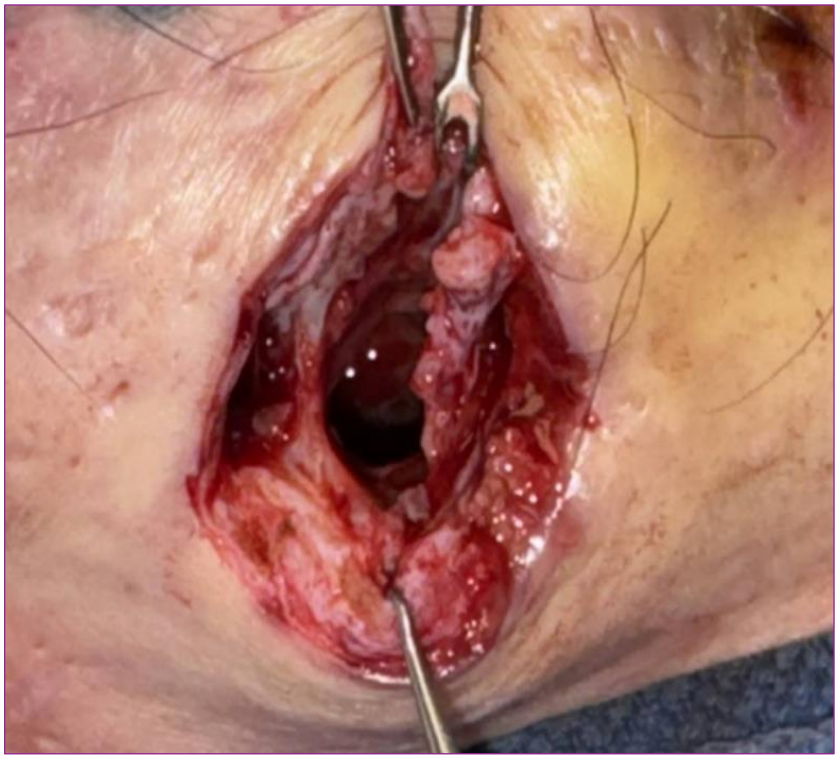

Figure 4. Open lesion composed of fibrous tissue visualized during de-roofing procedure without evidence of significant purulent drainage.

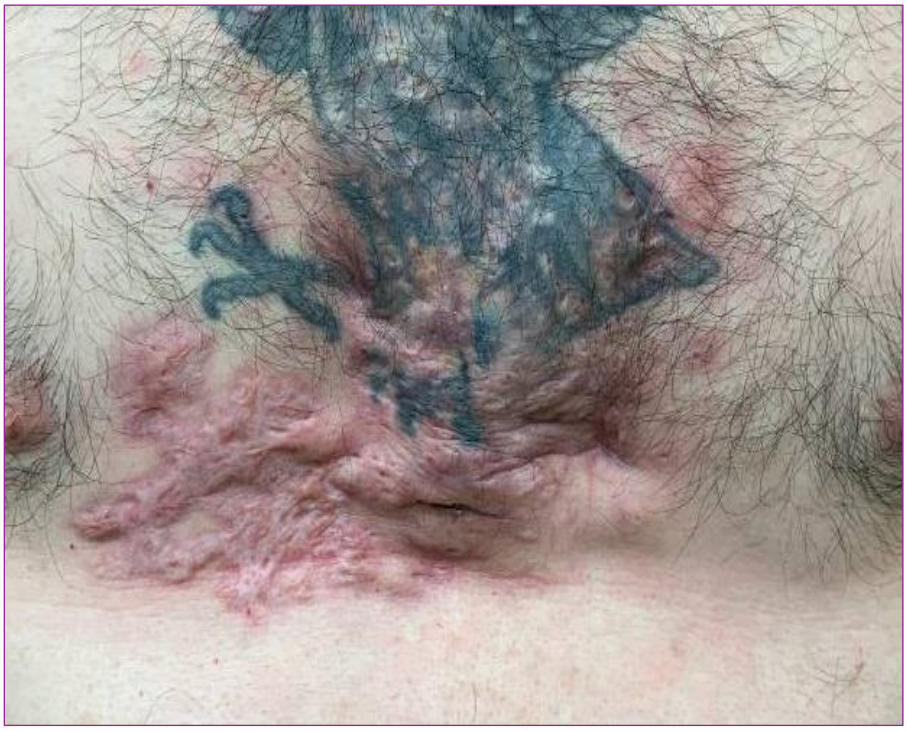

Figure 5. Anterior chest wall lesion with reduced tenderness, erythema, and discharge.

be used acutely to reduce inflammation but should be avoided long-term due to the side effect profile. In more severe cases, surgical incision and drainage can be performed, which the described patient received. In chronic, debilitating cases, radical excision of the area that removes all apocrine gland bearing tissue can be performed. Beyond the physical aspects of HS, studies have shown that depression and anxiety are common comorbid conditions.[10] Thus, achieving good control of HS is important for optimal quality of life and mental health.

CONCLUSION

HS is a chronic inflammatory skin condition that typically appears after puberty and is characterized by follicular occlusion. Early diagnosis and intervention is important to prevent HS from becoming severe and debilitating. Clinicians that are familiar with HS may be aware that skin folds are the most affected areas, however, this case report illuminates an atypical area, the chest, which may be affected. This suggests that HS should be considered on the differential diagnosis for a patient with inflammatory skin nodules, wherever the affected area is, so that they can be treated efficiently and achieve optimal results.

Conflict of Interest Disclosures: None

Funding: None

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