CLINICAL VIGNETTE

Clinical Review of Hidradenitis Suppurativa

Ifeoma S. Izuchukwu, MD, and Mehran J. Kashefi, DO

Case Report

A 37-year-old man was seen in the emergency department (ED) with worsening fatigue and dizziness for 1 week. He was known to be anemic and had refused admission for transfusion earlier in the day, but returned with worsening symptoms. The patient had a 15-year history of hidradenitis suppurative (HS). He had extensive involvement of the hairline, posterior neck (see **figure 1**), axilla, inguinal folds, scrotum, buttocks and low back. The patient had undergone multiple incision and drainages of abscesses, skin grafts, and removal of sweat glands to treat the HS. He was also treated with long-term antibiotics, steroids and immune-modulators without permanent resolution. The patient had multiple complications of HS including infective endocarditis due to bacteremia from an infected PIC line requiring a homograft aortic valve replacement. Additional complications included insulin resistance and osteomalacia from chronic steroid use; anemia of chronic disease; nephrotic syndrome secondary to amyloidosis, brachial plexus injury after incision and drainage of an axillary abscess; chronic pain and depression due to his chronic illness.

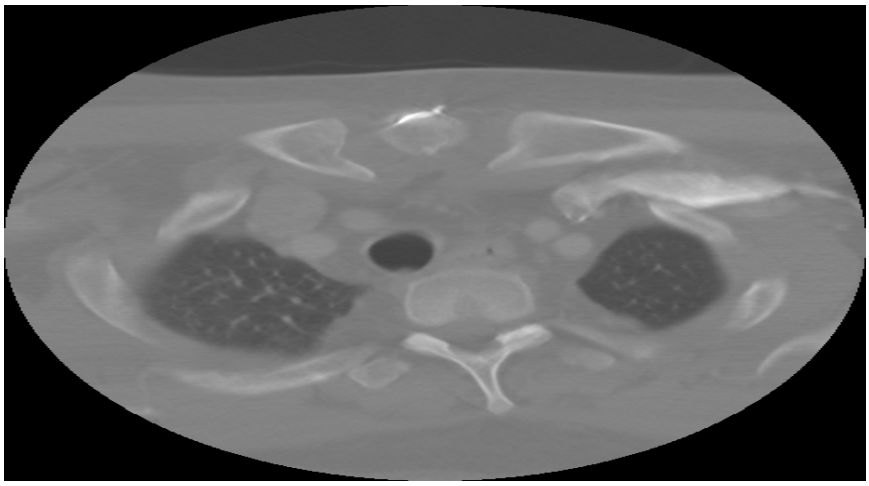

Figure 1: CT of neck soft tissue showing numerous micro abscesses.

On physical examinations, the patient was afebrile with blood pressure of 124/73 mmHg and heart rate of 71 beats/minute. He was slightly pale, but in no distress. He had candidiasis on his tongue. Skin examination revealed cutaneous abscesses on his lower back, peri-rectal region, scrotal and perineum. He also had abdominal striae and bilateral non-pitting pretibial edema.

Discussion

Hidradenitis suppurativa (HS) is a chronic inflammatory disease that usually affects areas of the skin with a high density of apocrine glands (axillae, groin, submammary, perianal and perineal regions,) manifested by recurrent abscesses, sinus tracts and scarring[1]. It most commonly arises from apocrine glands. The etiology is still poorly understood. There is a genetic component with probable hormonal influence on gene expression. Shearing forces from obesity and tight clothing also contribute to its development. The incidence of HS is as high as 1 in 300, with no racial predilection. It affects more women than men, 3:1, respectively. The onset of symptoms usually occurs between

puberty[2,3] and age 40. The psychological impact on the patient can be great, encompassing social, personal, and occupational challenges. This impact should be addressed in all patients with significant disease[4].

HS is caused primarily by follicular occlusion with secondary involvement of the apocrine glands. It affects the following sites in order of frequency: axillae, inguinal area, inner thighs, perianal and perineal areas, mammary and inframammary region, buttocks, pubic region, scrotum, vulva, chest, scalp, and retroauricular area. The axillae, groin, and inframammary regions are the most common areas affecting women; perineal and perianal skin areas are more commonly involved in men[5]. Onset can be insidious, with solitary, painful nodules that can last weeks to months. These lesions may develop into recurrent episodes of inflammation. They are commonly incorrectly diagnosed as "boils" or "furunculosis." Unlike furuncles, HS lesions are often deep, round (not pointed), and without central necrosis. The average duration of a single lesion is 7 days and the average number of lesions is 2 per month, with a variable range of 1 per year to 30 per month. Most patients have at least 1 active lesion at all times[6]. HS can be staged according to Hurley's clinical staging system (see **table 1**). About 75% of HS patients are in stage I, 24% in stage II, and 1% in stage III. Lesions are painful and malodorous. The abscesses can make walking or sitting difficult and can rupture into surrounding tissues. Incision and drainage relieves most of the pain. One study found HS to be one of the most distressing dermatological conditions[7]. Superinfection can result causing fever and systemic involvement. The diagnosis is clinical without specific diagnostic tests[8].

TABLE 1 - Hurleys Clinical Staging, from Hidradenitis Supprativa Foundation.

Stage I	Stage II	Stage III
Abscess Formation, single or multiple without sinus tract	Recurrent abscess with sinus tracts and scarring – tunneling and cicatrisation	Diffuse involvement with or multiple interconnected tracts or abscesses
75% stay at this stage	24 % progress to stage II	Only 1 % progress to stage III

No treatment has proven effective for all patients[4]. Management should be appropriately tailored for the severity and distribution of HS as well as quality of life of the patient. Multiple treatment regimens are available, including antibiotics, retinoids, corticosteroids, immune-modulators, incision and drainage, local wound care, local excision, radiation, and laser therapy. Medical management with appropriate antibiotics, if initiated early, can be successful in mild to moderate severity HS as well as improving disease control prior to attempted curative surgery in severe HS. Other helpful measures include advice on lifestyle changes, intralesional steroids, systemic retinoids, hormonal manipulation, and a revival of interest in the use of radiotherapy for HS. While there is a place for 'conservative' surgical procedures (including CO_2 laser) in selected cases of mild to moderate HS, radical excision of all apocrine-bearing tissue is the definitive treatment. Close interdisciplinary collaboration as well as cautious timing and planning of surgery to minimize recurrence rates is recommended[9].

Other methods utilized include: electrosurgery, which allows rapid unroofing and cauterization of extensive cysts and sinus tracts and carbon dioxide laser excision with second-intention healing. The use of silastic foam dressing avoids the pain of conventional management of granulating wounds by gauze packing. This approach is also superior in that it addresses the defect resulting from adequate excision of Hidradenitis[10]. When compared to split skin grafting, silastic dressing was preferred by patients in one study as it caused good cosmetic result and avoided the need for immobilization and a painful donor site. The graft however, resulted in more rapid healing of the excised area than healing by secondary intention[11].

HS is a common disease treated by multiple specialties. It is debilitating and its cause is still yet unknown, however various theories of aggravating and triggering factors exist. Factors include obesity, tight clothing, smoking, deodorants, shaving and depilation of areas, oral contraceptives and lithium. Early diagnosis is critical to reduce complications. Surgery should be used as a last resort.

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