Recurrent Painful and Purulent Lesions of the Groin

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ANSWER

Hidradenitis suppurativa (HS): The image shows tender, inflamed papules and nodules, with active drainage of purulent material. The patient’s CBC revealed underlying anemia associated with her chronic disease. Regional lymphadenopathy was typically absent, and the characteristically foul odor of chronic HS was noted.

HS is a disorder of the terminal follicular epithelium in apocrine gland–bearing skin. It most commonly occurs in regions rich in apocrine glands, such as the axilla, the groin, the perineum, and the perianal region. The condition can also occur on the buttocks, the scrotum, and the submammary areas. HS in the perineal region tends to be the most severe. The onset of disease is often correlated with the
development of apocrine sweat glands after puberty (most frequently in the second and third decades of life). HS is thought to affect 1% of the population worldwide, and it most often affects women, with a female-to-male ratio of 2-5:1.

HS is believed to start with the formation of keratin comedones in the apocrine-gland follicles. This leads to occlusion of the apocrine ducts with subsequent superimposed inflammation and infection. Abscesses eventually form, with chronic infection that spreads in the area of involvement, induration, and sinus tract and fistula formation. Episodes of acute cellulitis are a common complication of HS. The early lesions of HS are isolated pruritic nodules that may be painful and may persist for weeks or months without change. The nodules typically develop into pustules that eventually rupture, draining blood-stained, purulent material. Recurrences then develop at the original site. The severity and natural course of the condition vary from patient to patient, but untreated HS is typically a relentless, progressive disease. Acute exacerbations and remissions are characteristic, often leading to sinus-tract formation with marked scarring.

The cause of HS is unknown, though current theories suggest a multifactorial etiology. Conditions that may contribute to the development of HS include genetic predisposition, obesity, and local frictional trauma. Local folliculitis or previous episodes of skin infection with organisms such as streptococci, staphylococci, and Escherichia coli may also be part of the etiology of HS. Hormonal factors, such as low levels of estrogen and/or high levels of androgens, are also thought to predispose patients to HS; this accounts for the increased incidence or severity of HS with pregnancy and oral contraceptive use. Poor hygiene does not cause HS, and the disease is not contagious.

HS is clinically recognized to have 3 stages of progression, which dictate therapeutic intervention. Stage 1 is characterized by single or multiple abscesses without sinus tracts or scarring. Stage 2 is characterized by recurrent abscesses with sinus-tract formation and scarring. Finally, diffuse or broad involvement with multiple interconnected sinus tracts and abscesses characterize stage 3.

Nonspecific therapeutic measures for all patients with HS include good hygiene, weight reduction, use of antiseptic detergents, and avoidance of tight-fitting clothes. Acute-stage treatments include a 2-week course of antibiotics that may include a combination of erythromycin and metronidazole, minocycline, or clindamycin. In addition, intralesional steroid injections may cause early lesions to involute within 12-24 hours of injection. For patients with chronic relapsing disease, treatment options include long-term antibiotics, high-dose systemic steroids, estrogens, and retinoids. Stage 2 or 3 disease with chronic sinus tracts may be treated with total wide excision and healing with flaps and/or grafts.

This patient was initially treated with topical silver sulfadiazine (Silvadene) and systemic amoxicillin/clavulanate potassium (Augmentin). With this therapy, the patient’s associated cellulitis markedly improved, and the chronic inflammation that had characterized her condition partially resolved. After the acute exacerbation subsided, she was noted to have chronic draining fistulas and established abscesses. She was referred to a plastic surgeon, who surgically resected the involved areas in the groin and perineum. Advancement skin flaps were used to close the defect primarily, with drains left in the subcutaneous tissue plane for 5 days. The patient healed uneventfully and returned to work within 2 weeks. At the time this case study was written, the patient had not experienced any additional episodes of active HS since her surgery.

For more information on HS, see the eMedicine articles Hidradenitis Suppurativa (in the Dermatology section), Hidradenitis Suppurativa (in the General Surgery section), and Hidradenitis Suppurativa (in the Emergency Medicine section).

References:

BACKGROUND

A 47-year-old woman presents to her primary care physician with a history of several years of chronic skin infections and painful, 1-3 mm red pustules in her groin area. Many of the pustules have broken and are draining a foul-smelling, puslike fluid mixed with what appears to be blood. The patient reports that these lesions almost always begin as firm bumps that are not painful and then eventually break open. Additionally, the patient has had episodic abscess formation in the involved area for many years, with extreme discomfort for at least the past 18 months.

The patient has seen physicians for this problem in the past and has been treated with oral and topical antibiotics. The nodules seemed to improve when she was taking the antibiotics, but nothing has stopped the recurrences or cured the condition. Any contact with the affected area increases the irritation and pain. The patient has felt socially uncomfortable because of the strong, offensive smell, and her pain has caused her to substantially reduce her activity level.

The patient's medical history is significant for morbid obesity, which led her to undergo gastric bypass surgery. The inflammation and pain in her groin worsened after she lost over 100 lb. Now, many of the eruptions occur in the fold under her pannus. She reports no fever and no exposure to new chemical agents, detergents, or cleaning agents.

On physical examination, her vital signs are a temperature of 98.6°F (37.0°C), a heart rate of 88 bpm, and a blood pressure of 132/65 mm Hg. The patient has a nontoxic appearance, and the cardiovascular examination findings are normal. There is no clinically significant lymphadenopathy, even in the inguinal area and in the armpits. She has numerous draining lesions in various stages of eruption; those in the groin and perineal regions are tender to palpation. Evidence of coalescence of some of the lesions and a spreading redness in the inguinal area are observed.

The patient’s complete blood count (CBC) shows the following values: white blood cell (WBC) count, 8.6 × 10^9/L; hemoglobin (Hb), 8 g/L; hematocrit (Hct), 0.259 (25.9%); and platelets, 361 × 10^9/L.

What is the diagnosis? Why is the patient experiencing what appears to be recurring infections?

CASE DIAGNOSIS

What is the diagnosis? Click here for the answer

HINT

The nodules are recurrent, are painful, and are discharging fluid.

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