Hidradenitis suppurativa is a chronic, recurrent, scarring, inflammatory disease that affects the regions of the skin bearing apocrine sweat glands: the axillae, inguinal folds, suprapubic area, anogenital area, buttocks, areolae, and inframammary area. It is seen mostly in women and only rarely before puberty. When hidradenitis suppurativa occurs in African American women, it tends to be more severe.

**CLINICAL FINDINGS**
Initially, hidradenitis suppurativa presents with furuncle-like nodules and abscesses that may be indistinguishable from furunculosis, or common “boils.” Lesions are painful and tender, and they often become infected secondarily and exude a serosanguineous or foul-smelling purulent material that may stain clothing.

Lesions recur, new lesions crop up, and old lesions scar in a frustrating, unrelenting process. Chronic hidradenitis suppurativa is indicated by the appearance of sinus tract and fistula formation, ulcerations, and, eventually, hypertrophic linear bands of scars. Characteristic multiple open comedones (blackheads) develop in long-standing cases.

The most common area of involvement is the axillary region; the groin is also frequently involved. However, lesions may also be seen on the perineum, buttocks, and, rarely, the neck and scalp. Hidradenitis suppurativa is often a cause of embarrassment and, possibly, social isolation.

Other conditions appear to be related to hidradenitis suppurativa and may coexist in the same patient. The so-called follicular occlusion triad, which consists of hidradenitis suppurativa, acne conglobata, and dissecting cellulitis of the scalp, has been well documented. Pilonidal sinus was later added to the triad, making it a tetrad.
PATHOPHYSIOLOGY
The exact cause of hidradenitis suppurativa is unknown. Traditionally, it had been considered a primary inflammatory disorder of the apocrine glands (and was sometimes referred to as apocrinitis or apocrine acne). The current hypothesis suggests that poral occlusion of the hair follicle leads to retention of the secretory products and subsequent inflammation. This hypothesis is supported by the fact that in most biopsy specimens, the apocrine glands are intact and unaffected, and follicular occlusion is constant. Inflammation of the apocrine glands is thus considered to be secondary or incidental. Bacterial involvement is also not a primary pathogenic event. The most common pathogens are Staphylococcus aureus and gram-negative rods. With perianal disease, there is an increased likelihood that Escherichia coli, Klebsiella spp, Proteus spp, and anaerobic organisms may be found.

Hormones appear to affect the course of hidradenitis suppurativa. Symptoms often improve during the estrogen elevation phases of the menstrual cycle. Also, the condition often improves during pregnancy, only to flare during the postpartum.

DIFFERENTIAL DIAGNOSIS
In its early stages, hidradenitis suppurativa is most often confused with recurrent furunculosis. Solitary lesions resemble a furuncle, lymphadenitis, or an infected epidermoid cyst. In the vaginal area, an infected Bartholin’s cyst may resemble a solitary lesion of hidradenitis suppurativa. The multiple lesions of hidradenitis suppurativa that scar and form sinus tracts should be easily distinguishable from the lesions of other conditions.

MANAGEMENT
Hidradenitis suppurativa is a difficult, frustrating condition to control.

PREVENTIVE MEASURES DURING REMISSIONS
When a hidradenitis suppurativa patient is in remission, she can decrease the risk of recurrence by wearing loose, cotton undergarments, which minimizes friction and moisture. Other preventive measures include:

- The use of absorbent powders.
- Weight reduction.
- The use of bacteriostatic soaps.

TOPICAL THERAPY
Limited and very early disease may be helped somewhat by the daily use of a topical antibiotic, such as clindamycin or erythromycin. Intralesional corticosteroid injections inserted directly into the painful lesions are used to treat limited acute exacerbations.

SYSTEMIC THERAPY
Oral prednisone can be used in short courses, particularly if inflammation is severe. A short course of prednisone at 40 to 60 mg daily, tapered over 2 to 3 weeks, is often quite effective. Prednisone is given alone or, most often, in combination with an oral antibiotic, such as minocycline, erythromycin, ciprofloxacin, a cephex...
alosporin, or a semisynthetic penicillin, given in the usual doses used for soft tissue infections.

For example, minocycline, in doses ranging from 50 to 100 mg twice a day, may be used on an episodic basis for weeks or, if necessary, months at a time and then tapered to the lowest dosage that relieves symptoms. Long-term administration of an antibiotic, such as minocycline, can also be used to prevent episodic flares. The efficacy of minocycline seems to be attributable to its anti-inflammatory action, not to its antibacterial effect.

Alternative antibiotics that can be helpful include erythromycin (250 to 500 mg three or four times a day), ciprofloxacin (500 mg twice a day), cephalexin (250 to 500 mg four times a day), and dicloxacillin (250 to 500 mg twice a day).

Systemic retinoids, such as oral isotretinoin, have been used with limited benefit in early disease that has not yet produced significant scarring. The systemic retinoids are not as effective in treating hidradenitis suppurativa as they are in treating severe nodular acne, however, and even after seemingly effective treatment, relapses are very common once treatment is stopped.

Some oral contraceptives, such as cyproterone acetate (which is not available in the United States), have been reported to be helpful in some cases. Cyclosporine has also been reported to be of some value.

SURGICAL MEASURES

Incision and drainage is performed only on fluctuant lesions. It affords short-term relief of troublesome, painful abscesses. Repeated incision and drainage may lead to more scarring and sinus tract formation.

Severe refractory hidradenitis suppurativa is best treated with a wide, complete surgical excision of the involved area, which may produce a definitive cure. A narrow excision of inflamed areas may help temporarily, but this method has a high recurrence rate.

Recently, ablation techniques using a carbon dioxide laser that spares normal tissue have been tried successfully. These techniques may become the standard of surgical treatment.

PROGNOSIS

The course of hidradenitis suppurativa varies. Some patients have very mild disease that may be indistinguishable from chronic furunculosis. Remissions may occur more frequently as the patient ages or as more scar tissue develops; however, total spontaneous resolution is rare. More commonly reported is a decline in severity at, or after, menopause.

Hidradenitis suppurativa: This patient has involvement of the inguinal areas, labia majora, and mesial thighs. Her undergarment was stained by the oozing lesions.

POINTS TO REMEMBER

- Recurrent tender furuncles or sterile abscesses in the axillae or groin, on the buttocks, or below the breasts suggests the diagnosis of hidradenitis suppurativa.
- Chronic disease is indicated by the presence of old scars, sinus tracts, and open comedones.
- An early diagnosis with definitive surgery seems to offer the best chance of cure.