ABSTRACT—Well-formed hidradenitis suppurativa is extremely resistant to conservative management and at the same time can become incapacitating to the patient. Radical surgical excision of the diseased area and resurfacing can bring about rapid and dramatic improvement in such patients. Two severe cases of hidradenitis of the perineal region are presented.

Apocrinitis or hidradenitis is an inflammatory condition affecting the apocrine sweat glands. These tuboalveolar glands are normally found in the axilla, groin, perineum, and genital areas. Conway et al. 1 divided infections of the apocrine gland into two stages. First the early stage, when infection occurs as a bead of pus at the summit of the infected gland; and second a chronic stage, in which there are numerous interconnecting, deep, and tortuous sinus tracts. This latter stage is characterized by a brawny induration of the skin and numerous discharging sinuses.

Case Reports

Case 1

A sixty-year-old black man was first admitted to St. Luke's Hospital Center in November, 1971. He gave a history of having had recurring perineal, scrotal, and perianal abscesses of six years' duration. In 1966 he had been hospitalized elsewhere and had incision and drainage of these abscesses. In 1970 he had had a split thickness skin graft to the perineal area following incision and drainage of a similar abscess.

The present hospital admission was precipitated by a history of focal seizures. On examination he was noted to be a thin anemic man. The liver was enlarged two fingerbreadths below the costal margin. Examination of the perineum and scrotal areas showed numerous discharging sinuses (Fig. 1). The scrotum was large, brawny, and edematous. The perineal skin was thickened and moist. The scattered sinuses extended from either groin, down to and around the anal canal. The exudates were yellowish-white in color. The discharge was malodorous. It was understandable why the patient psychologically felt he was a social outcast.

The significant laboratory findings were as follows: blood sugar, 1090 mg. per 100 ml.; alkaline phosphatase, 500 units per liter; serum glutamic oxaloacetic transaminase, 49.5 units per liter; and hemoglobin 10 Gm. per 100 ml.; urinalysis showed 4 plus sugar but no infection.

Throughout the previous six years, he had been given innumerable antibiotics. He had been on sodium oxacillin (Prostaphylin), 500 mg. four times daily for the previous ten months. Repeated cultures of the scrotal and perineal sinuses were positive for various organisms, Escherichia coli, Staphylococcus aureus, hemolytic enterococci, Candida, Klebsiella, and Bacillus proteus. The patient was given oral sulfisoxazole-phenazopyridine (Azo Gantrisin) to see if there was a connection between the urinary tract and the perineal sinuses; none was found as evidenced by the lack of dye on the perineum.

A cystogram and a voiding cystourethrogram were normal. An intravenous pyelogram revealed a normal right renal tract and a left pelvic kidney which functioned well. Findings on chest x-ray...
film, gastrointestinal series, and barium enema were all normal.

Results of cystoendoscopic and proctosigmoidoscopic examinations were normal. The latter examination did show, however, that the rectal sphincter was weak. There was no evidence of a perianal or rectal fistula. Examination revealed the prostate to be normal.

A liver biopsy was done because of the abnormal liver function tests; it showed some fatty infiltration and portal fibrosis. The patient’s diabetic condition was stabilized, and he was maintained on 30 units of N.P.H. insulin daily and an 1,800 calorie diet.

No neurologic cause could be found to account for his focal seizures. These were presumed to be caused by the high blood sugar.

The differential diagnoses of the scrotal and perineal lesions were lymphogranuloma venereum, tuberculosis, actinomycoses, urethral fistulas, and perianal or perirectal abscesses. A negative Frei test excluded lymphogranuloma venereum. Examination of the discharge excluded actinomycosis, and previous cultures were also negative for tuberculosis.

Biopsies were taken of the perineal and scrotal areas. Grossly there was extensive thickening of the subcutaneous tissues. This edematous tissue was “fleshy” and almost “sarcomatous-like” in appearance. There was no frank collection of pus, only multiple discharging sinuses. Microscopic examination showed hyperplastic stratified squamous epithelium, numerous inflammatory cells, with plasma cells, and histiocytes. There were also scattered multinucleated giant cells, with ectasia of the lymphatics. There was intimal fibrosis of the arteries. The final diagnosis was severe chronic inflammation of the scrotum, hyperplasia of the epidermis, and inflammatory endarteritis. Conway et al. noted that when the disease was of long duration, the chronic infection may have obscured the microscopic anatomy by destruction of the apocrine glands.

Ten days following the biopsy, a suprapubic cystostomy was done, followed by a radical excision of the scrotum, perineal tissues, and bilateral orchiectomy. During the operative procedure it was noted that the numerous sinus tracts extended down to but not deep into the perineal membrane. A bloc of tissue containing the infected sinus tracts was removed. The limits of the excision was the penoscrotal junction area anteriorly, the anal canal posteriorly, and the ischiopubic rami laterally. The upper limits of the excision included the groins up to the external inguinal ring area (Fig. 2A). An indwelling Foley catheter was most helpful in identifying the urethra during the dissection, since the sinus tracts encroached on the corpora spongiosa in places. Both spermatic cords were divided at the external inguinal rings. During the dissection, it was also necessary to identify the rectal sphincter with the aid of a rectal finger. Primary closure of part of the wound was possible, but the central area of the perineum could not be closed and had to be packed with iodoform gauze.

Several weeks later a split thickness skin graft was applied to the perineal area. The graft take was excellent. The postoperative course was complicated by the formation of small, bilateral
groin abscesses. These were subsequently drained. The final result was satisfactory (Fig. 2B).

Case 2

A sixteen-year-old black girl was admitted to St. Luke’s Hospital Center in August, 1972. She was diagnosed as having long-standing perineal hidradenitis (Fig. 3A). When twelve years of age, she began to have axillary and scalp abscesses. Shortly thereafter abscesses began to occur on the buttocks and thighs. She had had repeated incision and drainage of these abscesses, followed by long-term antibiotic therapy. Her general medical condition was otherwise satisfactory. Despite continued wound care and antibiotic coverage, the disease process progressively involved wider areas. Drainage continued from multiple fistulas in the axillary and the perineal areas.

Conservative management was continued for four years, without any improvement. Radical surgical excision of the affected areas was eventually performed. Several weeks later delayed skin grafts were applied to the perineal defects. The final result was satisfactory (Fig. 3B).

Comment

Hidradenitis suppurativa is a chronic and progressive condition, which involves mainly apocrine glands of the axilla and the perineum. It is more common in black persons. In the early stages the infection often responds to antibiotics, salves, or incision and drainage. However, when the sinus tracts go deeper and become epithelialized, it is most unlikely that antibiotics or salves will be beneficial. The chronic stage is associated with recurring foul-smelling discharge, which may
temporarily subside with antibiotics. However, within a short period of time the discharge recurs. At first, the patients are considered to have infected sebaceous cysts, but with recurring cycles of suppurative infection, the diagnosis becomes obvious. It is not unusual for these patients to have been to many clinics and to have had innumerable antibiotics with temporary improvement.

According to Rook, Wilkinson, and Ebling genitocrural hidradenitis may be found in association with axillary hidradenitis. It is thought to be more common in men and that acne may also be more common in these patients.

In the early stages of apocrinitis, when pea-sized nodules with pus appear, antibiotic coverage is beneficial. However, this antibiotic treatment must be given for long periods. Treatment with superficial radiotherapy has also been advocated in the early stages. When the chronic stage becomes established with "catacomb"-like burrowing of sinus tracts, radical excision of all the infected tissue becomes necessary. The surgical procedure offers three basic approaches: (1) excision and direct primary closure, (2) excision and resurfacing with primary or delayed skin graft, and (3) excision and closure by local flaps.34

Excision and direct skin closure is best suited in patients whose disease process is limited to a small area and tends to be arranged in a linear fashion. In the majority of cases of axillary and/or perineal hidradenitis, the disease involves large surface areas, and wide excision is best followed by split thickness skin graft. Delaying of the skin graft is rarely necessary even when there are multiple draining sinuses. However, when excision becomes so extensive, as reported in these cases, delaying of skin graft is deemed advisable.

Amsterdam Avenue at 114th Street
New York, New York 10025
(DR. WARD)

References