Pilonidal Disease:
The Case for Excision with Primary Closure*

ALAN R. SHONS, M.D.,† JOHN R. MOUNTJOY, M.D.‡

From the Department of Surgery, Lockbourne Air Force Base Hospital, Lockbourne AFB, Ohio

PILONIDAL DISEASE represents a significant source of disability among young people. Traditionally, military surgeons have had a wide exposure to the problems of pilonidal disease, and many reports of large series have come from military hospitals. Between 1942 and 1945, 77,637 men were admitted to army hospitals for pilonidal disease. In many reported studies, in which a variety of surgical technics have been used, recurrence rates have been high, and the difficulty of curing patients with pilonidal disease is stressed. In this report the experience of a series of patients treated in a U.S. Air Force hospital is used to emphasize two points: 1) a simple technic of excision and primary closure under local anesthesia can result in an acceptably low recurrence rate; 2) the technic causes minimal discomfort and disability in the immediate postoperative period.

Material

In a two-year period 57 patients were seen in the surgery department because of pilonidal disease. Four of these patients were admitted for excision and open packing of the area due to very extensive abscess formation and cellulitis at the time of admission. The remaining 53 patients all eventually underwent the same procedure of excision and primary closure of the wound, and this report is based upon experience with those 53 patients. Sixty-eight per cent of the patients had had previous pilonidal surgery. Twenty-five per cent of the patients who had previous operations had had one or more previous definitive excisions, and the remainder had had incisions and drainage of abscesses. Forty-nine of the 53 patients reported previous abscess formation. The age range of the patients was 15 to 44 years, with an average of 24 years.

Fifteen of the 53 patients had acute abscess formation when first seen in the surgery clinic. These abscesses were incised and drained under local anesthesia as an outpatient procedure. The wound was packed with 1/4-inch iodoform gauze. The patient was begun on a ten-day course of treatment with oral tetracycline, 250 mg four times a day, and sitz baths. The iodoform packing was removed in 48 hours. Most patients lost no time from work as a result of the incision and drainage. These 15 patients were then scheduled for excision four to eight weeks later. None of the patients developed a recurrent abscess prior to surgery.

Each of the remaining 38 patients had evidence of a chronically draining sinus when first seen and was simply scheduled for admission.
Operative Technic

The patient is placed in the Kraske position and the low back and perianal area prepped with pHisoHex. The buttocks are retracted laterally with adhesive tape straps. The sinus tract is probed and an ellipse of skin is outlined to include the full extent of the sinus tract area. The skin and subcutaneous tissues are infiltrated with 1 per cent lidocaine with epinephrine. Fifteen to 25 ml of lidocaine are necessary. The ellipse of skin and subcutaneous tissue is then excised, with the excision carried down sharply to the presacral fascia. The average ellipse excised was 3 × 6 cm, with a range of 2 × 4 cm to 4 × 8 cm. The wound is washed with copious amounts of saline solution. Bleeders are tied with 4-0 plain catgut. There is no undermining of tissues lateral to the area of excision. The subcutaneous tissues are approximated in layers, using 2-0 chromic catgut. The layer closure results in satisfactory obliteration of deadspace. The skin is closed in a meticulous fashion using vertical mattress sutures of #32 wire. Careful attention is paid to a perfect match of skin edges, particularly in the perianal area. Mobility of the skin and subcutaneous tissue over the sacrum is maintained by avoiding the placement of sutures in the presacral fascia. The wound is covered with a gauze dressing and is sealed as far as possible from the anal area by strips of adhesive tape. Postoperatively, limited ambulation is permitted the first three days, with no sitting permitted for a week. The wire skin sutures are removed ten days postoperatively.

Results

The hospitalization time was 12 days, with the patient returning to full duty at the time of discharge. Five of the 58 patients, or 9 per cent, developed superficial problems in the wound within eight to ten days postoperatively. These were minor and usually consisted of a superficial area of drainage in the perianal end of the wound. In all five of these patients these areas healed within two weeks of their initial development. These five patients were hospitalized an additional five days. Forty-one of the 53 patients, or 77 per cent, were followed for a year. During this time only one patient developed a recurrent pilonidal infection.

Discussion

The etiology of the pilonidal sinus is disputed. Originally, in 1880, Hodges proposed a congenital origin. Recent evidence points to the acquired nature of the disease. Patey and Scarff believed that friction produced by the natal cleft was the essential factor in producing the sinus. Brearley postulated that hair in a drill-like form was responsible for the sinus tracts. Palmer reported that stretching of the integument with puberty produced orifices of the skin large enough to allow the easy entrance of hair. The possibility of a congenital origin of the pilonidal sinus has provided the rationale for various technics of wide excision and open packing. If one accepts an acquired origin of the disease, then more limited technics of excision can be accepted. There is no question that a technic of primary closure is more acceptable to the patient. Hospitalization is reduced and problems of wound care are eliminated. In McCaughan's study, the average hospitalization for open excision was 54 days, compared with 23 days for the primary closure technic.

It is often stated that the open technics result in a lower recurrence rate. However, in previous series in which excision and primary closure were used, such as those of Stevenson and Swinton and Rowe, essentially no recurrences were found during follow-up periods of 4 to 12 years. In a recent study, Hirshowitz and associates reported a 10 per cent recurrence rate in 149 patients treated with a technic very similar to that described here. Thus, it was