Symposium

The Dilemma of Pilonidal Disease:
Pilonidal Cystotomy, Reappraisal of an Old Technique

MICHAEL A. WEINSTEIN, M.D., ROBERT J. RUBIN, M.D., EUGENE P. SALVATI, M.D.

From the Division of Colon and Rectal Surgery, Muhlenberg Hospital, Plainfield, New Jersey

Since the introduction of pilonidal cystotomy by Anderson in 1847, numerous procedures have been used to treat pilonidal disease. These procedures run the gamut from injection of the sinus with phenol or Carnoy’s solution to radical excision of the pilonidal region, including the sacrococcygeal fascia, with or without primary closure. Despite this intense interest in pilonidal disease and its treatment, no single procedure has withstood the test of time. Recurrence rates of 5 to 70 per cent after surgical treatment have been reported. Our contention is that if there is a likelihood of recurrence, no matter what technique is used, then the least complicated technique giving the lowest incidence of complications should be used. This paper reviews the results of pilonidal cystotomy, probably the simplest of the surgical procedures used to treat pilonidal disease.

Materials and Methods

The two senior authors (R.J.R., E.P.S.) operated on a total of 126 hospitalized patients over a ten-year period (1965–1975). These patients include only those admitted to the hospital for cystotomy and having only pilonidal cystotomy performed. Most pilonidal cystotomies on our service are done as an office procedure. This group of 126 patients represents a select group in that the pilonidal disease was more extensive, necessitating operative in-hospital treatment.

All cystotomies except two (1.6%) were performed with local infiltration anesthesia: 0.25 per cent bupivacaine, 50 ml (or 0.50% lidocaine, 50 ml in the earlier group), with epinephrine, 1:200,000, and 300 turbidity units hyaluronidase. This was supplemented with intravenous administration of diazepam or Innovar®. In these 124 patients endotracheal intubation was not necessary. Two patients needed general anesthesia.

After a local field-block infiltration of the pilonidal region, a #4 probe is inserted into the external orifice of the pilonidal sinus and the skin overlying the sinus is incised. This incision over the probe is continued until all primary and secondary tracts have been laid open. The base of the cyst is then abraded, using a scalpel to remove hairs and granulation tissue. The cyst itself is not excised. The skin edge surrounding the incision is bevelled to insure proper drainage. Hemostasis is obtained using the Cameron Miller Electrocautery unit. Finally, a small strip of Gelfoam® is placed in the wound and a compression dressing is applied. Postoperative care consists of sitz baths with silver nitrate, .50 per cent, three times daily. This regimen is continued until the wounds are healed.

Address reprint requests to Dr. Weinstein: 1010 Park Avenue, Plaineld, New Jersey 07060.
All patients were followed until complete healing of their wounds or return for further treatment for recurrence occurred. Follow up via telephone was also performed to ascertain whether those patients who had not returned for periodic follow up had experienced recurrence after surgical treatment of their pilonidal disease.

**Results**

The mean age of the 126 patients studied at the time of operation was 21.4 years. The male/female ratio was 5/2.

Of the 126 patients, 12.8 per cent had histories of previous incision and drainage prior to becoming our patients. Only 2.4 per cent had previously had pilonidal cystectomy or cystotomy performed.

When first seen in our office for consultation, 73.8 per cent of the patients needed no preliminary treatment prior to hospitalization for cystotomy, while 26.2 per cent needed initial incision and drainage for abscess. No patient in this series underwent emergency in-hospital pilonidal cystotomy to drain a pilonidal abscess. Of those patients who needed preliminary incision and drainage, 71.9 per cent underwent definitive cystotomy in two months or less.

There was no mortality after in-hospital pilonidal cystotomy, and only minimal morbidity was seen. No wound infection occurred, nor was antibiotic therapy utilized. Of the 126 patients, 90.8 per cent left the hospital in three days or less. Only 1.8 per cent needed hospitalization for five days or more. Four patients (3.4%) suffered minor postoperative complications consisting of minor oozing of blood from the wound surface, necessitating suture ligation in bed. None of these patients was brought back to the operating room.

Postoperative healing was accomplished in two months or less in 79.1 per cent of patients. Of the 126 patients, 91 per cent needed ten or fewer postoperative visits.

Twenty-six cases of postoperative recurrence were found. Most recurrences (81.8%) occurred within the first postoperative year. This represented a postoperative recurrence rate of 20.9 per cent. Twenty-five of the patients who had recurrences were treated by in-office procedures, using local anesthesia with "laying-open" of the recurrences. Only one patient needed a formal in-hospital pilonidal cystotomy. In 77.8 per cent of the recurrences treated, the wounds healed within a month, with two office visits.

An attempt was made to contact those patients who had not returned for office follow-up after healing of the initial cystotomy (n = 100). Twenty-three patients were reached. Those contacted reported that no recurrence had occurred. All 23 patients expressed satisfaction with the technique of local anesthesia used.

**Discussion**

Pilonidal cystotomy performed with local anesthesia represents the most conservative surgical technique for dealing with pilonidal disease. We do not believe that wide excision of the pilonidal-disease-bearing area down to, or even encompassing, the sacrococcygeal fascia is necessary to treat pilonidal disease. Too often, radical procedures result in painful scars and unhealed wounds, as well as recurrences.

We acknowledge that pilonidal cystotomy is associated with recurrences. However, the low morbidity and general patient acceptance of the procedure make the recurrence rate acceptable. The patients leave the hospital in three days and are back to work within two weeks. Healing usually is complete within two months. When recurrence of the disease is seen, it is small, requiring only treatment in the office. Miller, using pilonidal cystotomy performed with spinal anesthesia, reported a similar experience.

With the rising cost of medical care required to underwrite the expense of more