Comparison between drainage and curettage in the treatment of acute pilonidal abscess

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ABSTRACT

Objective: Simple incision and drainage of a sacrococcygeal pilonidal abscess is associated with more than 40% recurrence. Definitive treatment of the chronic pilonidal sinus is recommended 4-8 weeks after incision and drainage. The present prospective clinical trial study was designed to compare the ‘curettage’ and ‘drainage’ of the acute abscess of the pilonidal sinus. Hospital stay, wound healing, and recurrence were noted.

Methods: This study was performed in Kerman University of Medical Sciences and Health Services, Iran from March 1999 to May 2004. One hundred and fifty patients who had an acute sacrococcygeal pilonidal abscess were randomly assigned to receive one of 2 drainage or curettage surgical procedures. All the surgical wounds were laid open, and daily sitting in a warm tub together with douche was recommended postoperatively. The 2 treatment modalities were compared in terms of the wound healing period, hospital stay, and postoperative complications using Chi-square and Student-t test. Patients with completed wound repair, consisting of 72 subjects in the curettage and 59 subjects in the drainage groups, were followed up to 65 months for the detection of recurrence by means of life table and Gehan’s generalized Wilcoxon test.

Results: Most patients spent only one day in the hospital, with initial healing occurring in <2 months. Healing process in the curettage cases occurred more quickly than the drainage patients (96% versus 78.7%, p<0.001). In all cases, the treatment relieved symptoms, and all the patients returned to work 7-10 days after the treatment. Three patients in the curettage group (4%) and 16 patients in the drainage group (21.3%) did not complete wound healing within 10 weeks (p<0.001). Recurrence of disease was encountered significantly less in the curettage subjects than the drainage ones (11% versus 42%) (p<0.001).

Conclusion: Unroofing and curettage, which is associated with higher rates of healing and lower rates of recurrence, may be the treatment of choice in the acute pilonidal abscess.

incision and drainage. However, it is not known how often healing per primam can be expected after simple incision and drainage, thereby avoiding definitive treatment. Excision of acute abscess mandates radical surgery through inflamed tissues; in addition, it leaves a large open wound and is associated with a prolonged healing time. The present prospective and controlled clinical trial study was designed to compare 'curettage' and 'drainage' of acute abscess of pilonidal sinus with special emphasis on the cure rate and recurrence rate among patients with healing per primam in a follow-up study of consecutively treated patients.

Methods. This study was performed in Kerman University of Medical Sciences and Health Services, Kerman, Iran from March 1999 to May 2004. Two hundred and seventy-five patients were treated for pilonidal disease: 175 chronic sinuses and 150 acute abscesses. Patients who had a first-episode acute sacrococcygeal pilonidal abscess (Figure 1) were randomly assigned to receive one of the 2 drainage or curettage surgical procedures. Written informed consent was obtained from all the patients. After the induction of general anesthesia and endotracheal intubation, the patients were positioned in Jackknife position. After incision and unroofing of the abscess cavity and evacuation of pus, hair and foreign material were removed from the cavity. One-half were treated by incision and drainage (drainage group). The other one-half were treated with curettage of the abscess cavity (curettage group, Figure 2). The abscess cavity was thoroughly curetted with a bone curette. Hemostasis was achieved by electro coagulation. Fine mesh gauze was placed over the wound, and fluffed sponges were loosely packed in the wound. All surgical wounds were laid open, and daily sits bath and douche was recommended postoperatively at home. The wound was kept as clean as possible, and the area was kept hair free by frequent shaving until healing was completed. The patients were observed every 3–7 days for 10 weeks. Wound healing was under observation during this period. Complete wound healing during 10 weeks after surgery termed "healing per primam". After this time, wounds that were not closed completely were considered as failure to healing. In 131 (72 curettage and 59 drainage) patients whose wound was healed initially, follow-up was performed in the surgical clinic or by telephone. The patients were asked on symptoms, specifically pain, discomfort, discharge from the wound and the presence of pits in the sacrococcygeal natal cleft. If any of the symptoms was present, the patient was asked to refer to the clinic, and the case was considered as recurrence. Meticulous attention to hygiene by the patients was emphasized. Seventy-two patients in the curettage group and 59 patients in the drainage group were followed for a period of 6–65 months.

Statistical analysis. The recurrence rates of patients were calculated using the life table analysis. Gehan’s generalized Wilcoxon test was used to determine whether there was a significant difference in the recurrence rates of the 2 groups. The differences between continuous variables and
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Results. Of 275 patients with pilonidal disease, there were 175 chronic sinus and 150 acute abscess. Patients who suffered from acute pilonidal abscess were randomly assigned to receive one of 2 drainage or curettage surgical procedures. There were no significant differences between the 2 groups in terms of mean age and gender ratio. Hospital stay in the subjects treated by curettage was no longer than that in those treated by drainage (1.12 ± 0.43 versus 1.24 ± 0.6, p=0.17).

Completed wound healing, up to 10 weeks after surgery (healing per primam), was observed significantly more in subjects treated by curettage than those treated by drainage (96% versus 78.7% p=0.001). During a follow-up of up to 65 months, the recurrence rate was significantly lower in patients treated with curettage than that in those treated with drainage: 10% versus 54%, p<0.001, (Figure 3).

Discussion. This study showed higher healing rates and lower recurrence rates than those achieved by the conventional therapy of acute pilonidal abscess; namely incision and drainage. The optimal treatment of pilonidal disease should result in a minimal recurrence and a short postoperative convalescence. While incision and drainage of the acute pilonidal abscess has long been considered as standard therapy, the recurrence rate ranges from 40-76%.1,4,5 The high recurrence rate prompts the treatment of some patients with primary excision. This primary excision procedure does not significantly improve recurrence rates but results in a longer postoperative convalescence.1 According to Jensen’s study,3 42.4% failure to healing per primam was encountered 12 weeks after local anesthesia and simple incision and drainage for acute pilonidal abscess. Our study resulted in 21.3% failure to healing in a period of up to 10 weeks. Lower rates of failure may be due to better drainage and cleansing of the abscess cavity under general anesthesia and a suitable position. Hair remaining in an inadequately drained abscess cavity is the chief factor in causing the persistence of the infection with drainage at the incision site or formation of a new abscess.6 Shaving the hair for 3 to 4 cm from the surrounding edges to prevent its accumulation in the wound may be the most important aspect of postoperative care.7 Most of the patients in our study were discharged on the first postoperation day, and they were encouraged to keep a regular diet and take appropriate analgesia. This study with up to 56 months of follow-up confirms that the curettage technique achieves a shorter postoperative convalescence, higher healing rates and lower compromising recurrence rates.

In conclusion, unroofing and curettage, which is associated with higher rates of healing and lower rates of development of chronic pilonidal sinus, may be the treatment of choice in acute pilonidal abscess.

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References


dichotomous variables were analyzed using Student’s t-test and Chi-Square test. P values of <0.05 were considered significant.