Results of Phenol Treatment in Pilonidal Disease

Research Article

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Abstract: Sacrococcygeal pilonidal sinus is a disease mostly seen in young males. In its treatment there are surgical and nonsurgical options such as phenol injection. In our study; we aimed to share the results of our patients that had phenol treatment and discuss phenol treatment in company with previous literature.

Eighty-two patients who applied to our hospital with pilonidal disease and refused the surgical treatment between May 2008 - June 2010 were involved in our study. After trimming of sacrococcygeal region, 1 cc phenol was injected via sinus opening under local anesthesia. Treatment results were recorded and than evaluated.

Of 82 patients that applied to our polyclinic 75 (91,4%) were male and 7 (8,6%) was female. Mean age was 25,7 (17-42) years. Mean follow up time was 3,4 (2-5) years. In 8 (9,7%) patient complications have occurred (abscess in 2 patient, skin necrosis in 1 patient and relapse in 5 (6,1%) patient). Cure was obtained in 74 (90,2%) patient. Phenol treatment of pilonidal sinus is easily applied, it has acceptable relapse rates, it does not need hospitalization, it could be used safely according to its more comfortable recovery period than surgery and the patient could return to normal life in a short time. Thus it could be considered as a first choice in the treatment of pilonidal sinus disease.

Keywords: Phenol, pilonidal disease, recurrence

INTRODUCTION
Saccrococcygeal pilonidal sinus is a common disease seen mostly in young males and it was first described by Herbert Mayo in 1883 [1]. Beginning from this date various surgical procedures have been applied to patients [2]. Some authors have suggested use of sclerosant materials in treatment of pilonidal sinus disease [3, 4]. Generally, aim of using these agents is destruction of cavity and hair follicles in it, inflammation due to chemical burn and wound healing with stiff granulation tissue. Phenol solution described by Maurice et al. is the most preferred agent [5, 6]. The aim of this study is sharing our results of patients that had phenol treatment for pilonidal disease and comparing the results with other treatment options in consideration of literature.

MATERIALS AND METHOD
Eighty-two patients who referred to Ankara Dr. Sami Ulus Education and Research Hospital General Surgery Polyclinic between May 2008 - June 2010 with pilonidal sinus disease were involved in the study. Previously operated patients were excluded from the study. All patients were informed with application and risks of the treatment and informed consent was taken. All patients were treated as outpatient.

Before the procedure sacrococcygeal region of all patients were trimmed. Region was cleaned with povidon-iodine solution. Local anesthesia with 5 ml Lidocaine was applied to skin, sacrococcygeal fascia, sinus tractus and surrounding tissue. Number of sinuses, length, diameter and localization were not included in evaluation. Sinus openings were debrided from hair and debris. 1 cc phenol solution was given with plastic cannula. Patients were externed with 5 day Cefuroxime-Axetil treatment.

Patients were controlled in every 10 days. Operation fields were evaluated. Debridement was made to fields that contain necrotic material. Sacral depilation in every 15 days was suggested to patients. Complete closure of sinus openings after 30 days was accepted as cure. Relapse was defined as leak and formation of sinus openings after cure. Second phenol treatment was applied to patients who do not heal up after this period. Nonhealing wounds after second injection were accepted as failure. Non healing wounds after second application and relapse cases were treated with surgical
operation. Follow up time was minimum 2 years. Adipose tissue necrosis, skin necrosis and relapse was recognized as complication and recorded.

RESULTS

Of 82 patients that applied to our polyclinic 75 (91.4%) were male and 7 (8.6%) was female. Mean age was 25.7 (17-42). After first phenol application 72 out of 82 patients pilonidal sinus were closed with epithelialisation. In 10 patients, after one month follow-up leakage did not stop and sinus openings did not close. These patients were treated with phenol for the 2nd time. After another one month follow-up sinus of 7 patient was closed with epithelialisation but in 3 patient cure was not obtained. These three patients were accepted as failure of the procedure. Mean follow up time was 3.4 (2-5) years. In 8 (9.7%) patient complications have occured (abcess in 2 patient, skin necrosis in 1 patient and relapse in 5 (6.1%) patient) (Table 1). Apart from failure in 3 patients and relapse in 5 patients, cure was achieved in 74 (90.2%) patients. Abscesses were drained in two patients. Complete recovery was provided with debridement and antibiotics. One patient with skin necrosis did not required grefting and healed with dressings. Surgical treatment was performed to replased cases.

Table - 1: Complications and rates

<table>
<thead>
<tr>
<th>Complications</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abscess</td>
<td>2</td>
<td>2.4</td>
</tr>
<tr>
<td>Skin Necrosis</td>
<td>1</td>
<td>1.2</td>
</tr>
<tr>
<td>Recurrence</td>
<td>5</td>
<td>6.1</td>
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<tr>
<td>Total</td>
<td>8</td>
<td>9.7</td>
</tr>
</tbody>
</table>

DISCUSSION

Even though years have passed over its first defining, etiology and effective treatment of pilonidal sinus disease is still a major problem in medicine [7]. Unidentification of etiology and lack of a treatment method that has low relapse rates are the basis of the problem. As a frequent disease, pilonidal sinus effects mostly the population in second and third decades. It is mostly seen in males [8]. In our study mean age was 25.7 and patients were largely consisted of males. From this aspect it is similar to literature. Main reason why it is widely seen among males could be that male population has more hair follicules than females and the less referral of women to health centers due to sociocultural bothers. Besides, as sex hormone activity levels are higher in young population it could be the reason why it is usually seen in younger people.

Despite the fact that many techniques have been described for pilonidal disease treatment an ideal technique has not been found yet. Treatment options of this disease have a wide range. Objective is finding a procedure that has less early complication rates, that reduces the stay in hospital and has low relapse rates. In surgical treatment of pilonidal sinus disease, different relapse rates were reported according to the surgical procedure. These relapse rates were stated as: 5-19% in cystotomy [9], 6-17% in Bascom operation [10], 16-22% in primer excision-closure [11, 12], 1-7% in karydakis operation [13-15], 0-5% in dufourmental and limberg flaps [16,17]. There are studies reporting 60-100% success with phenol treatment. In our study relapse was observed in 6,1% of patients, and successful treatment was gained in 90,1% of patients. Surgical treatment needs a long period including preoperative preparation period, postoperative hospital stay and long recovery period after discharge, however, phenol applied patients are sent home after a 15 minutes procedure. Besides, long recovery period causes extra labor force loss postoperatively. In addition, operative stress and postoperative cosmetic problems are also a extra psychological burden to patients. In patients with pilonidal sinus disease, phenol treatment could be the first choice for treatment due to its effectivity, acceptable relapse rates and less labor force loss.

CONCLUSION

Phenol treatment of pilonidal sinus is easily applied, it has acceptable relapse rates, it does not need hospitalization, it could be used safely according to its more comfortable recovery period than surgery and the patient could return to normal life in a short time. Thus it could be considered as a first choice in the treatment of pilonidal sinus disease. To show the exact effectivity we need more prospective studies that include long term follow up results.

REFERENCES