
**THE ROLE OF PHENOL INJECTION IN THE TREATMENT OF
PILONIDAL SINUS DISEASE****Qais K Baqir**

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Abstract

The aim of this study was to determine the impact of phenol injection on the outpatient treatment of the sacrococcygeal pilonidal sinus disease. A prospective analysis was taken of forty patients between June 2002 to June 2006 as an outpatient. Age, sex, state of sinuses at initial presentation & the recovery time was analyzed. Phenol injection applied on 40 patients, 37 males & 3 females. Forty percent of the patients required one injection while 55 % of the patients had two applications. The recovery time was between 1-3 months. Recurrence was observed in 15% (6 patients). Phenol treatment is simple, easy & inexpensive method that can applied on an outpatient basis, decreasing both recurrence rate & the morbidity.

Introduction

Pilonidal sinus (PNS) disease was first reported in 1880¹. Sacrococcygeal pilonidal sinus is a common disorder among young adults. It is a disabling nuisance which can result in an abscess draining sinus tract resulting in a long term loss off productive power or tend to have high rates of morbidity². The onset of PNS is rare both before puberty and after the age of 40 years. Males affected 2.2-4 times more frequently than females probably due to their more hirsute nature³. Also because of the effect of sex hormones on pilosebaceous glands which coincides with the earliest onset of pilonidal sinus disease⁴. In the 1950s, pilonidal sinus disease was thought to be of congenital origin rather than an acquired disorder. The pilonidal sinus and abscess were thought to be secondary to a congenital remnant of an epithelial-lined tract from postcoccygeal epidermal cell rests or vestigial scent cells. Sinuses to the neural canal can occasionally extend to the dura, but these are rare and are located in the lumbar region rather than the sacral region. Pilonidal dis-

ease is now widely accepted as an acquired disorder based on the observations that congenital tracts do not contain hair and are lined by cuboidal epithelium. The recurrence of the disorder after complete excision of the disease tissue down to the sacrococcygeal fascia and the high incidence of chronic pilonidal sinus disease in patients who are hirsute further support the acquired theory of pathogenesis⁴.

PNS may be asymptomatic for some time prior to presentation. The majority of patients only present with the onset of symptoms, usually pain or discharge are present in 70-80% and are the most frequent described symptoms⁵. Occasionally painless lump or swelling may be discovered by the patient or the characteristic midline pits may be found during a routine physical examination⁶. It is a symptomatic disease which usually presents as an acute pilonidal abscess, a chronic pilonidal disease & complex or recurrent pilonidal disease⁷. Despite advent of surgical therapy more than a century ago, an effective method of its management continues to remain

debatable⁸. Different approaches ranging from conservative treatment⁹ to an extensive surgical excision has been practiced for a long time¹⁰.

Patients and method

A prospective study of 40 patients conducted as outpatient during the period of June 2002 to June 2006. Those patients with acute PNS abscess were excluded from the study.

One-two ml of 80% phenol is injected in the sinus under local anesthesia and left for 1 minute, then expressed out of the cavity by irrigation of the sinus with normal saline 0.9%. This may repeated 3 times for a total 3 minutes of phenol exposure at one session. The treatment may be repeated every 4 weeks as necessary as wound healing progresses. Paraffin Jelly needed for protection of the skin from phenol. The procedure covered by NSAID for few days [diclofenac tab. 50 mg or injection 75 mg]. Also antibiotic cover in form of metronidazole tab. 200 mg t.i.d with cephalixin capsules 500 mg q.i.d. Patients were advised to keep the area cleaned & shaved. Dressing is used for comfort. The patients were followed for a period of 2 years. The recovery stated when the patient has no symptoms and complaints for one year after therapy.

Result

The total number was 40 patients, Thirty seven patients were males (92.5%) and three patients were females (7.5%). Age was (18-35 years), mean age was 25 years. Forty percent of the patients required single phenol injection, 55% required two injections although 2 patients required 3 injections as shown in table I.

Table I: Number of phenol injections

No. of Injections	No.	%
1 injection	16	40
2 injections	22	55
3 injections	2	5
Total	40	100

The recurrence rate was 15% and was most commonly seen in the male patients(12.5%) as demonstrated in table II.

Table II: The recurrence rate of PNS

recurrence rate	No.	%
Male	5	12.5
Female	1	2.5
Total	6	15

Discussion

Many modalities of treatments for symptomatic PNS disease have been described. The goals of the ideal procedure for the treatment of this disease should be reliable wound healing with low risk of recurrence, short period of hospitalization, minimal inconvenient to the patient and low morbidity with few wounds management problems. Also treatment should allow the patient to resume normal daily activities as quickly as possible especially it affect the younger age group¹.

The phenol is an aromatic alcohol, it exhibit weak acidic properties, also corrosive and poisonous, it is sometimes called carbolic acid. It sterilize the sinus tract by intense inflammatory respond & remove embedded hair after irrigation with normal saline 0.9%^{11,12}. The conservative treatment of the pilonidal sinus with penalization has been defined

as simple operation with similar results achieved by surgical procedures but has the advantages of a short inpatient stay and lesser productive power losses¹². Especially in view of the low costs and the high degree of patients comfort.

The intense inflammatory response may cause severe pain at the area that require a covering of NSAID in form of (Diclofenac 50mg) two time a day or single injection of (Diclofenac 75mg) accompanied with antibiotic cover¹.

Phenol injection used as treatment of PNS is more common in Europe than the united states⁵.

Forty percent of the patients required one phenol injection while 55% required 2 injections, although 2 patients required three injections. The recovery time was between 1-3 months. The incidence of

recurrence in our study was 15% (6 patients) developed PNS abscess that required surgical drainage while the incidence of recurrence reported in other studies was approximately 9-27%^{11,13} which is similar to the incidence followed simple excision or packed open wound¹⁴. Three cases develops small area of skin necrosis as a result of a local inflammation caused by the phenol. Other complications observed is the frequently transient redness in the skin, which cured smoothly.

Phenol injection treatment is a simple & inexpensive method that can be readily applied on the outpatient basis, decreasing both the recurrence rate and lost work time. We suggest this method be considered as the first-line treatment of pilonidal sinus.

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