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Original Research Article.

Evaluation of Patients of Pilonidal Disease in Surgical Ward of Tertiary Care Unit: A Hospital Based Study

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ABSTRACT

Background: Phenol treatment has been found effective in management of pilonidal disease. The present study was conducted to evaluate the effect of crystallized phenol application in cases of sacrococcygeal pilonidal sinus.

Materials & Methods: The present study was conducted in the department of general surgery on 18 patients. The nature of disease, number of sinus openings and phenol application was assessed.

Results: Out of 18 patients, age group 30-50 years had 4 males and 3 females, age group >50 years had 6 males and 5 females. The difference was non- significant (P- 0.1). 5 lesions were acute and 13 were chronic. Position of orifice was midline in 12 cases and lateral in 6 cases. Eight patients had 1 application, two had 2, one had 3, one had 4, one had 5, one had 6, two had seven and one had 8 applications.

Conclusion: It can be concluded that crystallized phenol is a cheap and easily accessible chemical agent that can be used for treatment of pilonidal disease. 5 lesions were acute and 13 were chronic.

Key words: Chronic, Phenol, Pilonidal Cysts.

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INTRODUCTION

Pilonidal disease is a type of skin infection which typically occurs between the checks of the buttocks and often at the upper end. The estimated incidence is 26 per 100,000 people. Risk factors include obesity, family history, prolonged sitting, greater amounts of hair, and not enough exercise. Obesity is an independent risk factor of disease and is associated with postoperative complication and recurrence. Regardless of BMI, sacrococcygeal subcutaneous fat thickness is associated with pilonidal disease. Growing hair is the most common cause of pilonidal disease and one of the factors that contribute to in growing hair was the depth and narrowness of natal cleft.[1]

The underlying mechanism is believed to involve a mechanical process. The lesions may contains hair and skin debris. Symptoms may include pain, swelling, and redness. There may also be drainage of fluid. It rarely results in a fever. The spectrum of pilonidal disease presentation varies from a chronically inflamed area and/or sinus with persistent drainage to the more acute presentation of an associated abscess or extensive subcutaneous tracts.[2]

Diagnosis is based on symptoms and examination. If there is infection, treatment is generally by incision and drainage just off the midline. The management of pilonidal sinus disease is frequently unsatisfactory. Many surgical and nonsurgical treatment modalities have been suggested, but an ideal and widely accepted treatment has yet to be found.[3] Recently, Phenol treatment has been found effective in management of pilonidal disease. The present study was conducted to evaluate the effect of crystallized phenol application in cases of sacrococcygeal pilonidal sinus.

MATERIALS & METHODS

The present study was conducted in the department of general surgery. It comprised of 18 patients of both genders (males- 10, females- 8). Institutional clearance was obtained prior to the study. All were informed regarding the study and written consent was obtained.

General information such as name, age, gender, etc. was noted on case history performa. The number of sinus openings was assessed. The skin and sacrococcygeal fascia along with the surrounding tissue of the main sinus and its lateral tracts were infiltrated with approximately 5 ml lidocaine with epinephrine. The phenol application was made concurrently with the abscess drainage for the treatment of the acute disease. The phenol was

left in situ for approximately 2 min and then expressed by pressure. Closure of the orifices was accepted as a complete cure. Results were tabulated and subjected to statistical analysis. P value less than 0.05 was considered significant.

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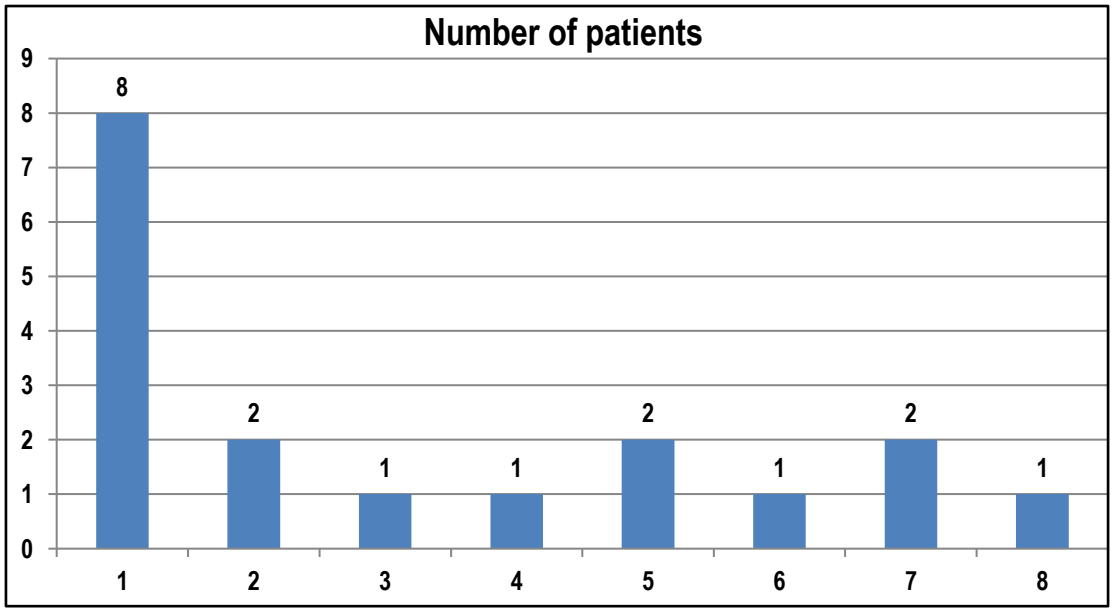
Table I: Age & gender distribution of patients

Total – 18		
Age group (years)	**Male**	**Female**
30-50	4	3
>50	6	5

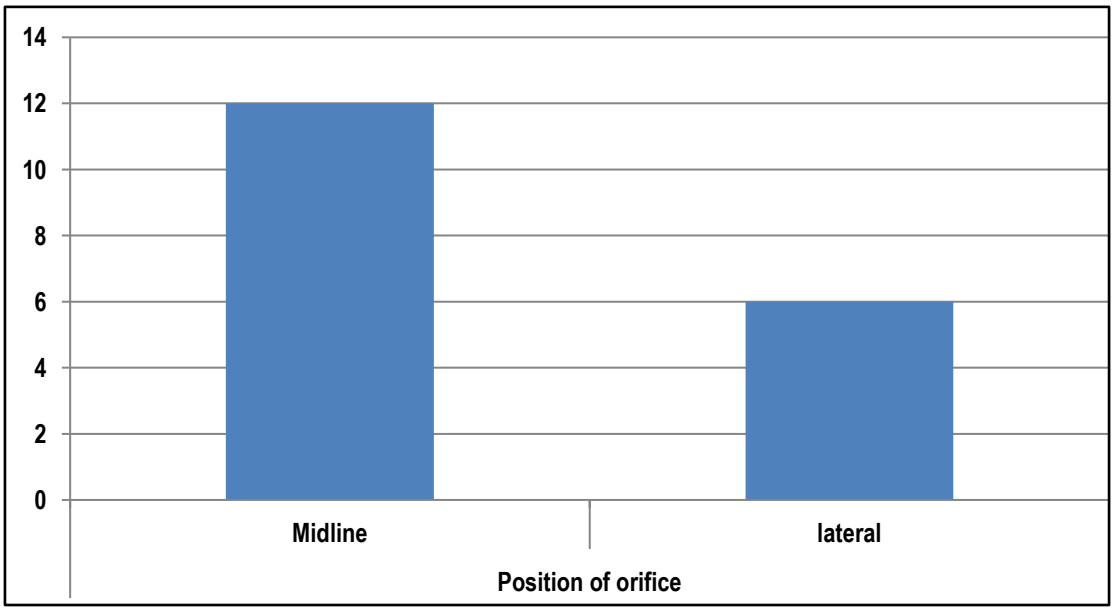
Table II: Nature of disease & position of orifice

Nature of disease		**Acute**	**Chronic**	**P value**
Number		5	13	0.05
Position of orifice	**Midline**	12		0.01
	lateral	6		

Graph I: The number of phenol applications



Graph II: Position of orifice



RESULTS

Table I shows that out of 18 patients, age group 30-50 years had 4 males and 3 females, age group >50 years had 6 males and 5 females. The difference was non- significant (P- 0.1).

Table II shows that 5 lesions were acute and 13 were chronic. Position of orifice was midline in 12 cases and lateral in 6 cases. The difference was significant (P< 0.05).

Table II shows that eight patients had 1 application, two had 2, one had 3, one had 4, one had 5, one had 6, two had seven and one had 8 applications.

DISCUSSION

Pilonidal disease was first described by Maurice and Greenwood in 1964 and consisted of an injection of 80 % phenol into the sinus tract. It occurs more often in males than females. Pilonidal sinus, although usually found near the coccyx, is a condition that can also affect the navel, armpit, or other regions, but it occurs rarely in these locations. Pilonidal cysts are itchy and are often very painful, and typically occur between the ages of 15 and 35. Although usually found near the coccyx, the condition can also affect the navel, armpit or genital region, though these locations are much rarer.[4]

In present study, we observed that out of 18 patients, age group 30-50 years had 4 males and 3 females, age group >50 years had 6 males and 5 females.

Hodges et al[5] found that crystallized phenol was applied a total of 97 times on 48 patients. The median follow-up was 22 months (range, six to 38 months). Two patients (4 %) could not participate in the follow-up. One of these patients had 12 sinuses and didn't continue treatment after eight applications of phenol, and the other had nine sinuses and didn't continue treatment after five applications of phenol. The one-time application cure rate was 64.5%, and the rate of success was 95 % with two or more applications. Recurrence did not occur during this period. A one-time phenol application is an effective treatment for pilonidal sinus disease. Hence, it can be an alternative to surgical treatment.

In present study, 5 lesions were acute and 14 were chronic. Position of orifice was midline in 12 cases and lateral in 6 cases. Eight patients had 1 application, two had 2, one had 3, one had 4, one had 5, one had 6, two had seven and one had 8 applications. This is similar to Schoeller T et al.[6]

Others believe it results from the penetration of hair follicles into the intergluteal sulcus subcutaneous tissue which causes a foreign body reaction.[7] Shaving the area may prevent recurrence. More extensive surgery may be required if the disease recurs. Antibiotics are generally not needed. Without treatment the condition may remain long term.

Kaymakcioglu et al.[8] studied 143 patients with sinus pilonidalis treated with 80 % phenol. They were followed up for a 24-month period, and a recurrence rate of 8.3 % (12 of 143 patients) was found. They studied 25 patients with sinus pilonidalis treated with the Limberg technique. They were followed up for a 20-month time frame, and a recurrence rate of 4 % (1 of 25 patients) was found.

Pilonidal disease has been studied for a long time, and its causes are unknown. Some authors have suggested that the pilonidal cyst is a congenital disease corresponding to remnants of the medullary canal. The present study was conducted to assess the role of crystallized phenol application in management of sacrococcygeal pilonidal sinus.[9]

The surgical procedure for pilonidal sinus disease is most often carried out under general or spinal anesthesia, with some cases occurring under local anesthesia. In this study, patients underwent the procedure under local anesthesia in the outpatient clinic, and the treatment was well tolerated by all patients. The ability to apply the phenol application under local anesthesia is another important advantage of this procedure.

Varnalidis I et al compared the methods used by our clinic and determine the outcomes in relation to healing, hospitalization time and recurrence. They have studied all the cases of patients with pilonidal sinus that were treated surgically in our clinic from January 1, 1997 to December 31, 1999. A total of 111 patients were treated of whom 92 (82.8%) were men and 19 (17.2%) were women. Ages ranged from16 to 65 years with an average age of about 25.1 years.

Of the 111 patients, 63 were treated with marsupialization and the remaining 48 were treated by excision (29 with open excision and 19 with the primary suture technique). One hundred and two (91.9%) patients were discharged from the hospital after the surgical procedure, while the remaining 9 patients were hospitalized for 24 hours. The healing time for marsupialization was 27.3 days, the primary suture technique was 11.7 days and the open excision method took 46.4 days. Recurrence was observed in 16 patients (14.4%). Recurrence appeared in 4 (6.35%) of the 63 patients subjected to marsupialization, 1 of the 29 patients subjected to open incision, and 11 (57.8%) of the 19 patients subjected to primary closure. In the absence of inflammation and/or recurrence, marsupialization was the surgical method of choice as it has a low percentage of recurrence and an acceptably short healing period.[10]

Pilonidal disease is a common anorectal problem and a surgical challenge. Treatment failure and disease recurrence are prevalent. Successful management depends on adherence to well-described surgical principles based on knowledge of pathogenesis and the patient's presentation. Abscess cavities must be vigorously débrided to remove all embedded hairs, and depilation of surrounding skin should continue for several weeks. Midline pits in all cases must be meticulously sought out and laid open or excised.[11]

CONCLUSION

Author concluded that crystallized phenol is a cheap and easily accessible chemical agent that can be used for treatment of pilonidal disease. 5 lesions were acute and 13 were chronic.

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