

Original Article

Analysis of Cases of Pilonidal Disease - A Retrospective Study

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ABSTRACT:

Background: Pilonidal cysts are itchy and are often very painful, and typically occur between the ages of 15 and 35. The present study was conducted to assess the role of crystallized phenol application in management of sacrococcygeal pilonidal sinus. **Materials & Methods:** The present study was conducted in the department of general surgery which included 24 patients diagnosed with pilonidal lesion. The number of sinus openings, maximal distance between sinus openings, recurrences and success rate were also evaluated. **Results:** 24 patients, males were 18 and females were 6. The difference was significant (P- 0.01). 4 lesions were acute and 20 were chronic. The difference was significant (P- 0.01). 14 were midline orifices and 10 were lateral orifices. The difference was non-significant (P> 0.05). Seven patients had 1 application, one had 1, one had 3, two had 4, one had 5, three had 6, two had seven and one had 8 applications. **Conclusion:** Crystallized phenol is a cheap and easily accessible chemical agent that can be used for treatment of pilonidal disease. No recurrence rate was observed. There was no complication in our study. **Key words:** Phenol, Pilonidal cysts, Recurrence.

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INTRODUCTION

Pilonidal disease is a type of skin infection which typically occurs between the cheeks of the buttocks and often at the upper end. Symptoms may include pain, swelling, and redness.^[1] There may also be drainage of fluid. It rarely results in a fever.

Risk factors include obesity, family history, prolonged sitting, greater amounts of hair, and not enough exercise. The underlying mechanism is believed to involve a mechanical process. The lesions may contain hair and skin debris. Diagnosis is based on symptoms and examination. If there is infection, treatment is generally by incision and drainage just off the midline. 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.²

The estimated incidence is 26 per 100,000 people. 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

There are a lot of conservative treatment methods, such as phenol application. Phenol treatment for pilonidal disease was first described by Maurice and Greenwood in 1964 and

consisted of an injection of 80 % phenol into the sinus tract. In this study, we used crystallized phenol. About 3 per 10,000 people are affected a year. It occurs more often in males than females. Often it occurs in young adulthood. The term means "nest of hair". It was first described in 1833.⁴

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.⁵ The present study was conducted to assess the role of crystallized phenol application in management of sacrococcygeal pilonidal sinus.

MATERIALS & METHODS

The present study was conducted in the department of general surgery. It included 24 patients diagnosed with pilonidal lesion. All were informed regarding the study and written consent was obtained. Ethical clearance was taken from institutional ethical committee.

General information such as name, age, gender, etc. was noted on case history form.

The number of sinus openings, maximal distance between sinus openings, recurrences and success rate were also evaluated.

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. If the sinus opening was less than 3 mm in diameter, it was enlarged by the use of a mosquito clamp under local anesthesia. If at least one of the sinus openings was 3 mm or more in diameter, this enlargement was not performed. Following determination of the direction of the sinus, the hair was removed with the use of the same clamp. If the sinus abscess had been previously drained, the drainage opening was usually large enough to remove the hair. The sinus tract was curetted through the use of a biopsy curette. The phenol application was made concurrently with the abscess drainage for the treatment of the acute disease. The crystallized phenol was put into the

sinus with the aid of the same clamp where it turned into the liquid form quickly at body temperature and filled the sinus. 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. Non recurrence of the same sinus and the nonappearance of a new sinus during follow-up, the treatment were considered a success. Those who were cured were recommended to return for a follow-up consultation on a yearly basis. Recurrence was classified as sinus reappearance following complete cure. Antibiotics were not used with any of the patients. Results were tabulated and subjected to statistical analysis using chi- square test. P value < 0.05 was considered significant.

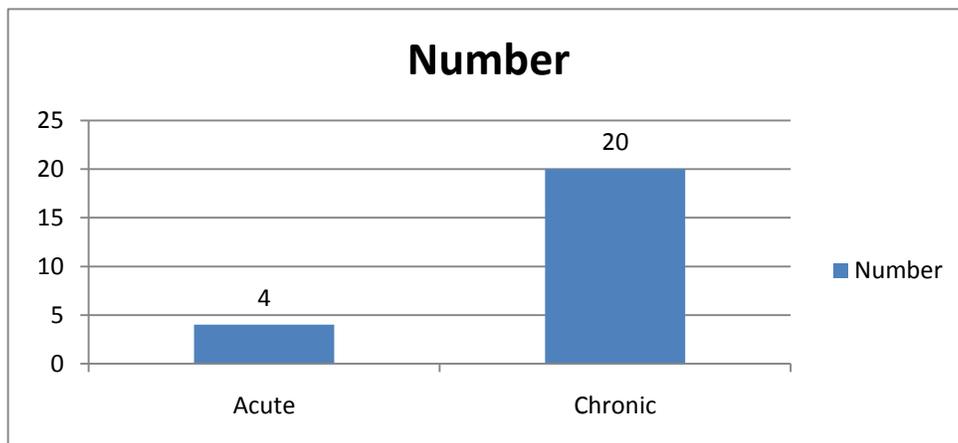
RESULTS

Table I Distribution of patients

Total - 24		
Male	Female	
18	6	0.01

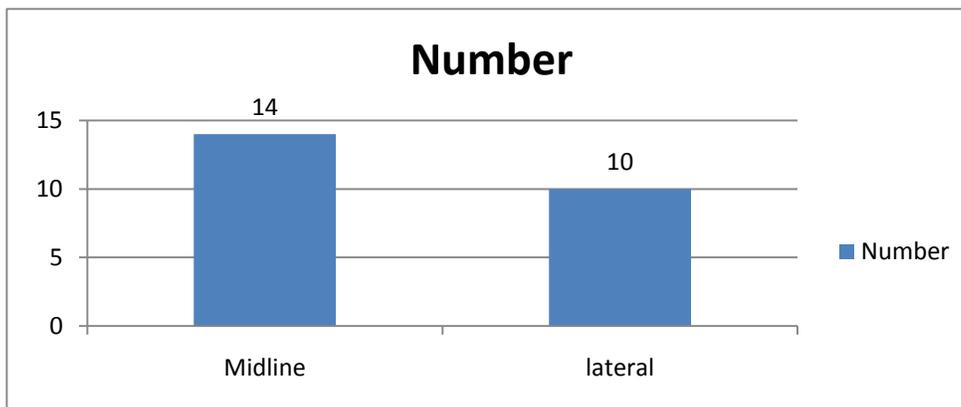
Table I shows that out of 24 patients, males were 18 and females were 6. The difference was significant (P- 0.01).

Graph I Nature of disease



Graph I shows that 4 lesions were acute and 20 were chronic. The difference was significant (P- 0.01).

Graph II Position of orifices



Graph II shows that 14 were midline orifices and 10 were lateral orifices. The difference was non- significant (P> 0.05).

Table II The number of phenol applications

Applications	1	2	3	4	5	6	7	8
No. of patients	7	1	1	2	1	3	2	1

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

DISCUSSION

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 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. Others believe it results from the penetration of hair follicles into the intergluteal sulcus subcutaneous tissue which causes a foreign body reaction.⁶ The present study was conducted to assess the role of crystallized phenol application in management of sacrococcygeal pilonidal sinus.

In this study we included 24 patients. 18 were males and 6 were females. 4 lesions were acute and 20 were chronic. 14 were midline orifices and 10 were lateral orifices. This is in agreement with Scholler et al.⁷

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.⁸ In present study, there was no recurrence of lesion in any of the patient.

One proposed cause of pilonidal cysts is ingrown hair. Excessive sitting is thought to predispose people to the condition, as sitting increases pressure on the coccygeal region. Trauma is not believed to cause a pilonidal cyst; however, such an event may result in inflammation of an existing cyst. However, there are cases where this can occur months after a localized injury to the area. Some researchers have proposed that pilonidal cysts may be the result of a congenital pilonidal dimple.⁹ Excessive sweating can also contribute to the cause of a pilonidal cyst. Moisture can fill a stretched hair follicle, which helps create a low-oxygen environment that promotes the growth of anaerobic bacteria, often found in pilonidal cysts. The presence of bacteria and low oxygen levels hamper wound healing and exacerbate a forming pilonidal cyst.

The complications described in the literature involving surgery for this disease are infections (30 %), non infected

collections, such as seromas or hematomas (3 %), and dehiscences of the surgical wound (6 %). The most common postoperative complications reported after phenol treatment are the development of abscesses and cellulitis. Kayaalp et al.¹⁰ reported complications in 10 % of phenol application cases. In our study there were no complications.

CONCLUSION

Crystallized phenol is a cheap and easily accessible chemical agent that can be used for treatment of pilonidal disease. No recurrence rate was observed. There was no complication in our study.

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