

## ORIGINAL RESEARCH

# Assessment of cases of pilonidal sinus

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### ABSTRACT

**Background:** Pilonidal sinus disease is a common surgical disorder. The present study was conducted to assess pilonidal sinus cases. **Materials & Methods:** 74 cases of pilonidal sinus of both genders were included in the study. The number of sinus openings was recorded. 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. **Results:** Age group 20-40 years had 6 males and 8 females, age group 41-60 years had 18 males and 12 females and group >60 years had 20 males and 10 females. The difference was significant ( $P < 0.05$ ). 25 cases were acute and 49 were chronic. The position of orifice was midline in 32 cases and lateral in 42 cases. 21 patients had 1 application, 16 had 2, 10 had 3, 8 had 4, 10 had 5 and 9 had 6 phenol applications. The difference was significant ( $P < 0.05$ ). **Conclusion:** Crystallized phenol can be effectively used for treatment of pilonidal disease. Maximum cases were chronic in nature.

**Key words:** Pilonidal sinus disease, Phenol, Surgical disorder

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### INTRODUCTION

Pilonidal sinus disease is a common surgical disorder. The word, pilonidal, means nest of hair and includes the etymological roots (Latin) of pilus (a hair) and nidus (nest).<sup>1</sup> The disease generally occurs in the sacrococcygeal region but has also been reported in other locations in which an anatomical cleft facilitates an accumulation of hair, including the axilla, between the breasts, the perineum, and the penile shaft, or in spaces between the fingers (in particular, in the case of barbers).<sup>2</sup> A negative pressure is created during body movements at the abovementioned sites, leading to penetration of the hair shafts into the skin with a resultant foreign body reaction and development of a sinus lined by granulation tissue. An umbilical pilonidal sinus is the rarest variant accounting for only up to 0.6% of cases.<sup>3</sup>

Pilonidal cysts are itchy and are often very painful, and typically occur between the ages of 15 and 35.<sup>4</sup> Although usually found near coccyx the condition can also affect armpit, navel or genital region, though these locations are much rarer. Recently, Phenol treatment has been found effective in management of pilonidal disease.<sup>5</sup> The mechanism of PS formation was first described as hair movement from the

surrounding skin under frictional impact, which may puncture the skin. It can be diagnosed with a careful examination, in which hairs can be seen deep in the umbilicus and usually protrude from a small sinus.<sup>6</sup> The present study was conducted to assess pilonidal sinus cases.

### MATERIALS & METHODS

The present study consisted of 74 cases of pilonidal sinus of both genders. All gave their written consent to participate in the study.

Data such as name, age, gender etc. was recorded. A careful clinical examination was done. The number of sinus openings was recorded. 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. Data thus obtained were subjected to statistical analysis. P value  $< 0.05$  was considered significant.

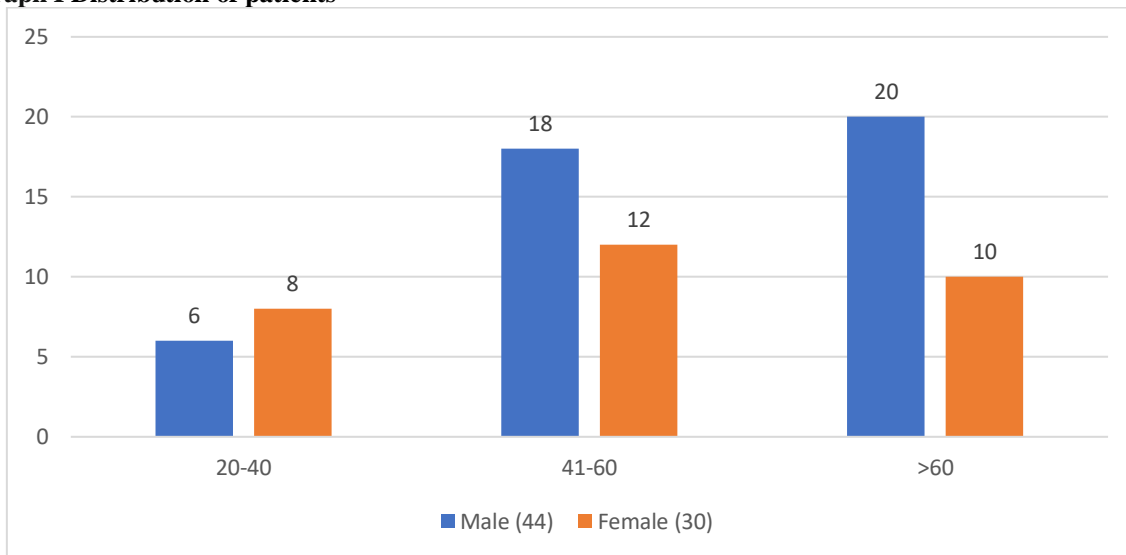
**RESULTS**

**Table I Distribution of patients**

Age group (years)	Male (44)	Female (30)	P value
20-40	6	8	0.84
41-60	18	12	0.04
>60	20	10	0.01

Table I shows that age group 20-40 years had 6 males and 8 females, age group 41-60 years had 18 males and 12 females and group >60 years had 20 males and 10 females. The difference was significant (P< 0.05).

**Graph I Distribution of patients**



**Table II Assessment of parameters**

Parameters	Variables	Number	P value
Nature	Acute	25	0.01
	Chronic	49	
Position of orifice	Midline	32	0.05
	lateral	42	
Phenol applications	1	21	0.91
	2	16	
	3	10	
	4	8	
	5	10	
	6	9	

Table II shows that 25 cases were acute and 49 were chronic. The position of orifice was midline in 32 cases and lateral in 42 cases. 21 patients had 1 application, 16 had 2, 10 had 3, 8 had 4, 10 had 5 and 9 had 6 phenol applications. The difference was significant (P< 0.05).

**DISCUSSION**

Pilonidal sinus (PS) is a chronic inflammatory disease which is characterized by a granulomatous reaction to fragments of hair shaft penetrating epidermis from the cutaneous surface.<sup>7,8</sup> This disease is a well-known and has been described by Mayo as far back as 1833 as a hair-containing cyst located just below the coccyx.<sup>9</sup> However pilonidal disease of umbilicus is very rare and Patey and Williams were the first to describe the umbilical pilonidal disease in 1956. Treatment of umbilical pilonidal disease ranges from conservative non-surgical treatment to a more aggressive approach such as total excision of the umbilicus followed by

delayed reconstruction.<sup>10,11</sup> The present study was conducted to assess pilonidal sinus cases.

We found that age group 20-40 years had 6 males and 8 females, age group 41-60 years had 18 males and 12 females and group >60 years had 20 males and 10 females. Pitarch et al<sup>12</sup> reported a case in a 28-year-old man who came with inflammation and suppuration in his navel that had commenced some 2 months previously. Meticulous examination revealed a sinus tract from which a number of hair fragments were extracted. The patient, who was hirsute and whose weight was appropriate for his height, had been shaving his body with a razor since about 4 months previously. The removal of the hairs from the cavity

alleviated the symptoms, and no recurrence was evident 6 months later.

We found that 25 cases were acute and 49 were chronic. The position of orifice was midline in 32 cases and lateral in 42 cases. 21 patients had 1 application, 16 had 2, 10 had 3, 8 had 4, 10 had 5 and 9 had 6 phenol applications. Rao et al<sup>13</sup> assessed the role of Z-plasty in promoting primary healing in pilonidal disease and to evaluate morbidity and recurrence. This study included 40 patients (36 males and 4 females) who underwent excision of sinus and Z-plasty closure for sacrococcygeal pilonidal sinus. The follow-up period ranged from 6 to 12 months. There were 36 males and 4 females with a median age of 25 years. The mean hospital stay was 2 days. The mean time to return to work after discharge from the hospital was 14 days. There were no recurrences, and all patients were satisfied with the cosmesis. Two patients (5 %) had numbness over the flap. Necrosis of flaps did not occur in any patient. Only three patients were noticed to have wound infection (7.5 %). Five patients (12.5 %) developed wound seroma. Although requiring some technical expertise, excision of sinus and Z-plasty offer superior results with respect to recurrence in the hospital stay and cosmesis of patients with pilonidal sinus.

Kaymakcioglu et al<sup>14</sup> 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.

## CONCLUSION

Authors found that crystallized phenol can be effectively used for treatment of pilonidal disease. Maximum cases were chronic in nature.

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