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Original Research

Assessment of anal incontinence among patients with fistula in ano

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ABSTRACT:

Background: An anal fistula is a tubular tract that joins the mucosa of the anal canal to the perianal skin by means of two epithelial surfaces. The present study was conducted to assess anal incontinence among patients with fistula in ano. **Materials & Methods:**66 patients presented with fistula their incontinence was evaluated using both Kamm's and Wexner's grading systems. They also got an evaluation using anal manometry. Three months later, the patients who underwent draining seton surgery had the same evaluation to determine their level of continence. **Results:** Out of 66 patients, males were 40 and females were 26. The duration of disease was less than 1 year in 36, 1-5 years in 23 and >5 years in 7 patients. Comorbidity seen were diabetes in 5, hypertension in 4 and CAD in 1 patient. The previous surgery performed was lay open fistula in 15, incision and drainage in 43 and Seton operation in 8 patients. Type of fistulawas intersphincteric in 7, high transphincteric in 20, low transphincteric in 11, suprasphincteric in 3 and low fistula in 24 patients. The difference was significant (P< 0.05).Kamm score 0 was seen in 35, 1-2 in 20, 3-4 in 3 and >5 in 8 patients. The difference was significant (P< 0.05).Wexner's score0 was seen in 41, 1-2 in 16, 3-4 in 5 and >5 in 4 patients. The difference was significant (P< 0.05). **Conclusion:** Neither the resting anal tone nor the squeeze anal tone significantly changed after draining seton surgery.

Keywords: anal fistula,anal tone, seton surgery

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INTRODUCTION

An anal fistula is a tubular tract that joins the mucosa of the anal canal to the perianal skin through two epithelial surfaces. Granulation tissue lines it. It may show up as several fistulous tracts or as a single tract.[1] Because the condition is underdiagnosed, misdiagnosed, and underreported, and most treatments are tried using conventional approaches, the true burden of the illness is unknown.[2] There is a 26% to 38% chance that an anal abscess may result in an anosthetic fistula. Additional fistulas resulting from subacute infection and anal canal cryptoglandular gland suppuration. First of all, Fistula in anoare less common causes that include cancer, TB, hidradenitis suppurativa, and Crohn's illness.[3]Colorectal surgeons struggle to treat complex anal fistulas because they are difficult to treat and frequently put patients at risk for long-term side effects such as fecal incontinence. Due to the acute-on-chronic inflammatory response and the ongoing presence of feces at the surgical site, there is also an elevated risk of persistent cryptoglandular infections following surgery.[4] Various treatment options available there is no ideal surgery / therapy for fistula in ano. The dreadful complication of surgical intervention includes anal sphincter injury, which can result into incontinence or sometimes anal stenosis. The high rate of recurrence also limits the surgical options.[5]The present study was conducted to assess anal incontinence among patients with fistula in ano.

MATERIALS & METHODS

The present study consisted of 66 patients presented with fistula in the General Surgery departmentof both genders. All gave their written consent to participate in the study.

Data such as name, age, gender etc. was recorded. When the patients first arrived at the outpatient clinic, their incontinence was evaluated using both Kamm's and Wexner's grading systems. They also got an

evaluation using anal manometry. Three months later, the patients who underwent draining seton surgery had the same evaluation to determine their level of continence.Data thus obtained were subjected to statistical analysis. P value < 0.05 was considered significant.

RESULTS

Table I Distribution of patients

Total- 66		
Gender	**Male**	**Female**
Number	40	26

Table I shows that out of 66 patients, males were 40 and females were 26.

Table II Assessment of parameters

Parameters	Variables	Number	P value
Duration of disease	Less than 1 year	36	0.01
	1-5 years	23	
	>5 years	7	
Comorbidity	Diabetes	5	0.05
	Hypertension	4	
	CAD	1	
Previous surgery	Lay open fistula	15	0.02
	Incision and drainage	43	
	Seton operation	8	
Type of fistula	Intersphincteric	7	0.04
	High transphincteric	20	
	Low transphincteric	11	
	Suprasphincteric	3	
	Low fistula	24	

Table II, graph I show that the duration of disease was less than 1 year in 36, 1-5 years in 23 and >5 years in 7 patients. Comorbidity seen were diabetes in 5, hypertension in 4 and CAD in 1 patient. The previous surgery performed was lay open fistula in 15, incision and drainage in 43 and Seton operation in 8 patients. Type of fistula was intersphincteric in 7, high transphincteric in 20, low transphincteric in 11, suprasphincteric in 3 and low fistula in 24 patients. The difference was significant (P< 0.05).

Graph I Assessment of parameters

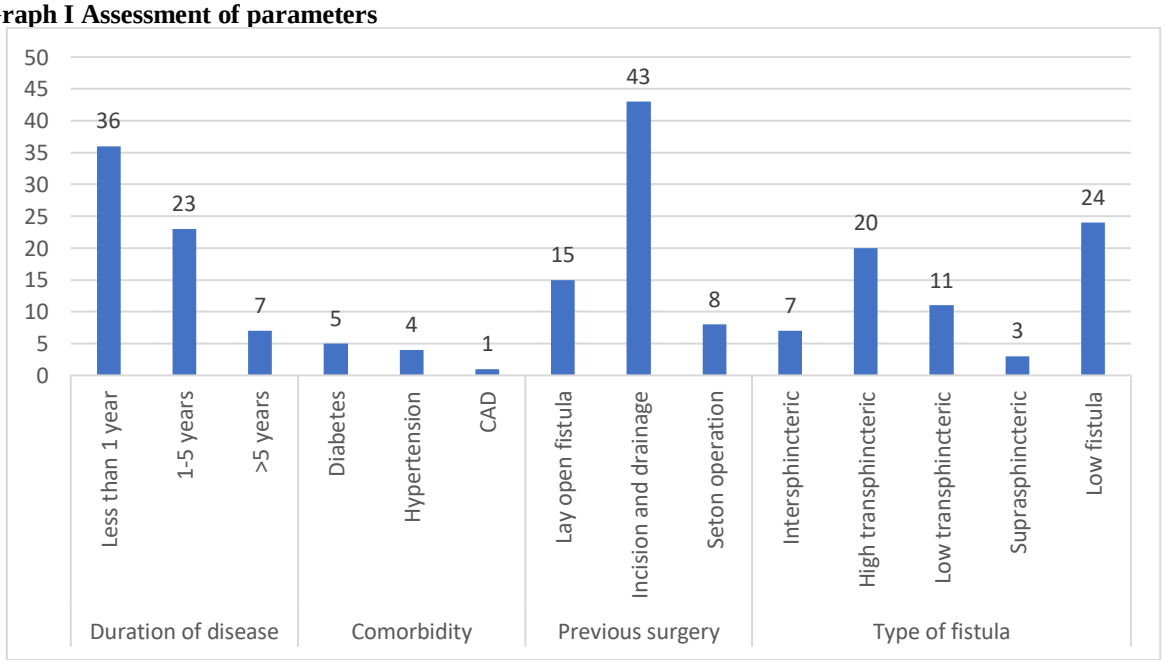

Table III Kamm score pattern preoperatively

Kamm score	Number	P value
0	35	0.01
1-2	20	

3-4	3	
>5	8	

Table III shows that Kamm score 0 was seen in 35, 1-2 in 20, 3-4 in 3 and >5 in 8 patients. The difference was significant (P< 0.05).

Table IV Wexner's score preoperatively

Wexner's score	Number	P value
0	41	0.01
1-2	16	
3-4	5	
>5	4	

Table IV shows that Wexner's score 0 was seen in 41, 1-2 in 16, 3-4 in 5 and >5 in 4 patients. The difference was significant (P< 0.05).

DISCUSSION

For many generations, the standard treatment for high perianal fistula in ano has been draining seton surgery. Though many novel concepts and surgical techniques have been tried in the past, no completely effective method free of problems has been found.[6] Staged seton surgery, a frequent surgical technique, is also known as draining seton surgery.During physical examination fistula in normally picked up during inspection of perineum, careful inspection reveals external opening of fistula.[7] Digital rectal examination can help in finding an internal opening, which is generally palpable as mild thick edge sinus, but this is best appreciated by proctoscopy.[8] In cases when internal opening is not visible or palpable, there should be high index of suspicion for complex fistula in ano, because internal opening can be at a higher level than the finger's reach. Both patient and treating surgeon should be prepared for a complex fistula surgery.[9,10]

We found that out of 66 patients, males were 40 and females were 26. The duration of disease was less than 1 year in 36, 1-5 years in 23 and >5 years in 7 patients. Mushaya et al[11] in their study the ligation of intersphincteric fistula tract (LIFT) was compared with anorectal advancement flap management (ARAF) of complex anorectal fistulas requiring previous seton drainage. Crohn's patients were excluded. Patients with no confirmed recurrent sepsis after 6 months were randomized to day surgery performance of LIFT (25; 17 male) or ARAF (14; 10 male) with removal of the seton. Outcome measures included recurrences, surgical time, complications, hospital readmissions, and fecal incontinence.LIFT was 32.5 minutes shorter than ARAF (P < .001). Complications were similar, with no hospital readmissions. Return to normal activities was 1 week for LIFT patients, 2 weeks for ARAF patients (P = .016). At 19 months there were 3 recurrences (2 in the LIFT group). One ARAF patient had minor incontinence.

We found that comorbidity seen were diabetes in 5, hypertension in 4 and CAD in 1 patient. The previous surgery performed was lay open fistula in 15, incision and drainage in 43 and Seton operation in 8 patients. Type of fistula was intersphincteric in 7, high transphincteric in 20, low transphincteric in 11, suprasphincteric in 3 and low fistula in 24 patients. We observed that Kamm score 0 was seen in 35, 1-2 in 20, 3-4 in 3 and >5 in 8 patients. Wexner's score 0 was seen in 41, 1-2 in 16, 3-4 in 5 and >5 in 4 patients. Ritchie et al[12]determined the incidence of anal incontinence after the use of cutting seton treatment for anal fistula.The average rate of incontinence following cutting seton use was 12%. The rate of incontinence increased as the location of the internal opening of the fistula moved more proximally. In the studies that described the types of incontinence, liquid stool was the most common followed closely by flatus incontinence. Incontinence associated with the treatment of fistulas defined as nonspecific cryptoglandular in nature was 18%.

The limitation of the study is the small sample size.

CONCLUSION

Authors found that neither the resting anal tone nor the squeeze anal tone significantly changed after draining seton surgery.

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