Original Article

Surgery

Surgery as a Preferred Modality of Treatment for the Patients of Chronic anal Fissure with Sentinel Piles

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ABSTRACT

Objective: To find out the preferred modality of treatment by patients having chronic anal fissure with sentinel pile
Study Design: Prospective, Observational Study
Place and Duration of Study: This study was conducted at the Department of Surgery, Baish General Hospital, Kingdom of Saudi Arabia from January 2008 to December 2011.
Materials and Methods: Forty eight patients had chronic anal fissures associated with sentinel piles. They had been explained the multiple modalities of treatment available along with their advantages and disadvantages. Some patients preferred surgery as 1st line of treatment while others conservative. Lateral sphincterotomy associated with fissurectomy was the surgical procedure applied, while 0.2% GTN cream as conservative modality.
Results: Out oftotal 48 patients, 39 were treated by surgery (P=0.2). Thirty two (Group-A) were treated by surgery as 1st line of treatment (P=0.2), while 7 (Group-C) as 2nd line after failure with 0.2% GTN cream (P>0.05). Healing rate and patients' satisfaction were excellent. A total of sixteen patients (41.02%) developed different post-operative complications, out of which, one patient (2.56%) had marked bleeding. One (2.56%) had transient flatus incontinence. Eight (20.51%) suffered from severe pain treated by opiate-derivative analgesic. Six (15.38%) had urinary retention. A total of 16 patients (Group-B) were initially treated conservatively with 0.2% GTN cream (P>0.05). Out of 16, nine (56.25%) were quite satisfied with conservative treatment, while seven (43.75%) had failure and switched to surgery as 2nd line of treatment.
Conclusion: None of the modality of treatment is without complications. Lateral sphincterotomy associated with fissurectomy is an effective treatment and gives patients a sense of satisfaction to the patient to get rid of sentinel pile.
Key words: Anal fissure, sentinel pile, anal sphincterotomy, fissurectomy, GTN

INTRODUCTION

Anal fissure is a common anorectal problem. The patients present with symptoms like bleeding per rectum, constipation, pain during and after defecation.[1] It may be acute or chronic. The chronic anal fissure may be associated with sentinel pile.

Ninety four percent of anal fissures are located posteriorly at the anal verge,[2] while the remaining are located anteriorly and a few at other positions. Many of the treatment modalities have been tried including surgical, like sphincterotomy, fissurectomy; and conservative, like GTN, diltiazem, nifedipine creams, botulinum toxin injection etc. It is claimed that chemical sphincterotomy is the 1st line of treatment for chronic anal fissure,[3] while botulinum toxin injection as 2nd line therapy[4]. Internal anal sphincterotomy is the gold standard surgical treatment.[4]

Anal fissure is quite common in Saudi Arabia. This may be due to multiple factors among which dietary habits are most important. Rice and flour without fiber is a common diet here, which may lead to constipation. The decreasing intake in dietary fiber over the 20th century and into the 21st has contributed to a steady rise in preventable anorectal disorders. Constipation and passage of hard stools is often the cause of anal fissure, although diarrhea can also contribute to its development.[5]

MATERIALS AND METHODS

This prospective, observational study was conducted at Baish General Hospital, Kingdom of Saudi Arabia from January 2008 to December 2011. During this period, 48 patients were studied, out of which, 36 were males and 12 were females. The age range was from 16 to 60 years with mean of 34. All the patients selected were suffering from episodes of bleeding per rectum, pain on defecation, constipation and sentinel piles. Their clinical presentation at the time of first visit to the surgical clinic was variable, but all the patients had sentinel piles. The period of their symptoms ranged from 1 to 2 years. During that period, some patients tried some local treatment including local anesthetic creams excluding GTN. The patients with acute fissures and without sentinel piles were not included in this study and were treated conservatively with 0.2% GTN cream for at least 12 weeks. The patients under treatment of any co-morbidity, like diabetes mellitus,

uncontrolled hypertension, and any cardiac disorder were also excluded.

The patients were thoroughly discussed about the available modalities of treatment and their advantages and disadvantages.Out of 48, thirty two patients (30 males and 2 females) preferred surgical treatment as first line therapy **(Group-A)**. For group-A patients, lateral internal sphincterotomy associated with fissurectomy was performed as a surgical procedure. Prophylactic intravenous antibiotics (1st generation cephalosporin and metronidazole) were given at the time of induction of anesthesia (spinal or general), followed by 3 eight-hourly doses and oral antibiotics up to 48 hours. Sixteen patients (6 males and 10 females) preferred, and hence were treated conservatively with 0.2% GTN as a first line therapy **(Group-B).** They were educated to apply the cream with finger over the fissure, partly outside and partly inside the anus. Sevenpatients of group-B (5 males and 2 females) who failed conservative treatment were switched to surgical modality **(Group-C).**Group-A and group-C patients were also advised sitz bath twice a day for 2 weeks post-operatively.

All the patients were followed up in surgical out-patient department by monthly visits initially, then 3-monthly up to the period of one year from the start of management. They were prescribed to change their food habits by adding fiber in their diet. They were also advised 10 ml of lactuloseb.i.d for the period of 8 weeks initially and then off and on to prevent constipation.

RESULTS

Out of 32 patients in **group-A**(P=0.2), 30 were quite satisfied while 2 had mild transient post-operative complications. One had moderate hemorrhage leading to soakage of gauze upto three days post-operatively,who was taken to OR for EUA. On proctoscopy of this patient, some blood clots were found in anal canal associated with mild oozing without any active bleeding. The anus was packed again for 48 hours and then reviewed without any obvious active hemorrhage but mild which stopped spontaneously within a week. Another patient had mild flatus incontinence, who was advised pelvic floor muscles physiotherapy and his symptoms relieved within 1 year follow-up period.Six patients had severe post-operative pain that needed opiate-derivative analgesic. Five patients had post-operative urinary retention which was relieved by passing Foley catheter for 24 hours.

Out of 16 (6 males and 10 females), 9 (2 males and 7 females) patients from group-B (P>0.05) were symptom-free and quite satisfied with conservative treatment and did not have their symptoms recurred within one year time period, though their sentinel pile did not improve considerably.Seven patients of group-B had recurrence of their symptoms at different times within one year and hence were operated**(Group-C).**Out of seven patients (4 males and 3 females) in group-C (P>0.05), four patients were apprehensive and their main concern/symptom was sentinel pile, and hence preferred surgery. Two patients of group-C had severe post-operative pain requiring opiate-derivative analgesic, and one patient had urinary retention, requiring Foley catheter. All the seven (group-C) patients were however, satisfied after operation and their symptoms were relieved including sentinel piles.Hence the symptoms of all the operated patients (both groups B & C) were relieved. Their wounds were healed including sentinel piles.

DISCUSSION

Out of total 48 patients, 36 were males and 12 were females with a ratio of 4:1. Though anal fissure has an equal incidence across the gender,[6,7] it is observed more common in males than females in our study. This may be due to social reasons where females are reluctant to be examined and operated by male doctors.Tauro LF and his colleagues found a male/female ratio of 1:0.52 in their study[2]. Fazila Hashmi and her colleague found a reverse ratio (55 females and 45 males) in their study.[8] The mean age of the patients in our study was 34 which is comparable to the study done by Richard CS etal which suggests the prevalence of this disease in young adults.[9]Pain on/after defecation was the main presenting complaint in all the patients, while other symptoms they have suffered like bleeding per rectum, and constipation, were present at different times of their clinical history. Hence pain on/after defecation is pathognomonic feature of anal fissure.[10] Out of 48 patients in our study, 32 preferred surgical intervention as 1st line of therapy. The reason explained by the patients was long time of estimated treatment required to heal the fissure by application of GTN cream, and their reluctance to apply the cream twice a day for 12 weeks. Another reason explained by the patients was their concern about sentinel pile which may not be completely resolved by the conservative treatment and hence making them apprehensive.

Table No.1: Overall outcome of the patients studies

	Group-A (n=32)	Group-B (n=16)	Group-C (n=7)	Total operated (n=39)
M/F ratio	30/02 (15:1)	06/10 (0.6:1)	04/03 (1.33:1)	35/04 (8.75:1)
Healing rate*	32 (100%)	09 (56.25%)	07 (100%)	39 (100%)
Recurrence rate*	None	07 (43.75%)	None	None
Bleeding*	01 (3.12%)	--	None	01 (2.56%)
Flatus incontinence*	01 (3.12%)	--	None	01 (2.56%)
Severe pain*	06 (18.75%)	--	02 (28.57%)	08 (20.51%)
Urinary retention*	05 (15.62%)	--	01 (14.28%)	06 (15.38%)
Overall post-op complications rate*	13 (40.62%)	--	03 (42.85%)	16 (41.2%)

*post-operatively and within 1-year follow-up

Healing rate of fissure with surgery was excellent (100%) though it was associated with few complications (Table-I). Sphincterotomy is currently considered the treatment of choice for chronic, recurrent and non-healing fissures.[11]In our study, out of 39 operated cases, the post-operative complications like marked bleeding for more than 3 days were observed in 1 (2.56%) case, flatus incontinence in 1 (2.56%) case, severe pain requiring opiate-derivative analgesic in 8 (20.51%) cases and urinary retention in 6 (15.38%) cases. These complications are quite comparable to other studies as none of the treatment is without complications.[4,8,12,13]Mousavi et al report no incidence of incontinence in their series,[14] while Garcia et al report an incidence of incontinence varying from 16.1 to 26.7% in patients undergoing lateral sphincterotomy.[15] Flatus incontinence, in our study, proved to be transient which improved with pelvic floor muscles physiotherapy. Post-operative pain may simply be treated by NSAIDs though some may need opiate derivative analgesia. The pain after lateral sphincterotomy improves within few days which is quite acceptable as compared with the pain of fissure itself. Mild oozing of blood will be observed for few days after operation, except in some cases which may bleed markedly for quite longer time. As the length of anal sphincter is incised on judgment basis, excessive blind incision may be the cause of this complication.[10] Post-operative bleeding may be overcome by using diathermy saving the skin. The cause of urinary retention could be either spinal anesthesia or post-operative pain. This complication has been observed quite often after hemorrhoidectomy also.[16]

CONCLUSION

Though conservative treatment of chronic anal fissure is effective, the surgical management is still preferable by some patients as 1st line of treatment. On one hand, it gives an excellent relief to the patients regarding their symptoms; while on the other hand, it provides mental satisfaction of getting immediate rid of the sentinel piles also.

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