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Research Paper

Comparative Study of Open Versus Sutured Haemorrhoidectomy in V.s.general Hospital, Ahmedabad

Medical Science

KEYWORDS : Open, sutured and haemorrhoidectomy.

Dr Shaishav Patel	Seniour resident doctor, Department of surgery, Sheth L.G. Hospital, Ahemdabad, India.
Dr Tejas Patel	Resident doctor, Department of surgery, Smt N.H.L. Municipal Medical College, Ahmedabad, India
Dr Darshak Prajapati	Resident doctor, Department of surgery, Smt N.H.L. Municipal Medical College, Ahmedabad, India
Dr Mukesh Suvera	Associate Professor, Department of surgery, Smt N.H.L. Municipal Medical College, Ahmedabad , India

ABSTRACT

Aim: *The aim of this study was to compare the early outcome of the conventionalopen with that of the sutured haemorrhoidectomy.*

Method: *Forty patients with symptomatic stage 3and 4haemorrhoidectomy were studied either with conventional open haemorrhoidectomy (n=20) or suturedhaemorrhoidectomy (n=20). All operations were performed under spinal anesthesia. Operative time, postoperative pain, duration taken to return to work, postoperative complications, wound healing rate and patient's satisfaction were recorded. Follow-up was weekly for four weeks.*

Results: *Open haemorrhoidectomy was easier and quicker to perform than suturedhaemorrhoidectomy (P-value = 0.000). There was no statistically significant difference in the average post-operative pain scores (P-value = 0.054). No difference in the need for extra analgesia was observed. The sutured haemorrhoidectomy resulted in faster rate of wound healing and earlier return to normal activity than open haemorrhoidectomy(P-value = 0.027). The overall patient satisfaction score was 1.95 in the sutured group and 1.80 in the open group but this difference was not statistically significant (P-value 0.159).*

Conclusion: *Sutured haemorrhoidectomy has a short-term clinical advantage over openhaemorrhoidectomy in terms of rate of wound healing and earlier return to work. There was no statistically significant difference in degree of patient satisfaction.*

Introduction:

Treatment of haemorrhoids is principally directed at symptoms and not at what the haemorrhoids look like. The old adage, "its hard to make an asymptomatic patient better" applies here. Traditionally conventional openhaemorrhoidectomy has been regarded as a notoriously painful operation, and because of this technical modifications to decrease postoperative pain have been tried. Goligher[1]referred to a patient who described a bowel motion following haemorrhoidectomy as being 'like passing bits of broken glass'.

Treatment of haemorrhoids ranges from non-operative or conservative (topical therapy and fibresupplementation), minimally invasive procedures such as rubber band ligation[2], cryosurgery, MAD, Doppler ligation[3], sclerotherapy, clamp and cauterization and others to operative procedures such as open haemorrhoidectomy, sutured haemorrhoidectomy, stapled and Whitehead haemorrhoidectomyas well as Wannas' operation[4]and ligasure TM[5].

The standard sutured haemorrhoidectomy as described by Mitchell[6] and Earle[7] removes only the redundant anoderm and haemorrhoidal tissue. The resulting defect is closed with a continuous absorbable suture[8]. Open haemorrhoidectomy as described by Salmon[9] is an excision with high ligation.

In the present study we have compared sutured haemorrhoidectomy with the conventional open haemorrhoidectomy with regards to the ease and duration of operation, post-operative pain scores and analgesic requirements, rate of wound healing, postoperative complications and patients overall satisfaction.

Patients and Methods:

Between June 2012 and May 2015, 20 consecutive patients with stage 3 or 4 haemorrhoids aged above 18 years operated upon with conventional open haemorrhoidectomy and 20 consecutive patients with stage 3 or 4 haemorrhoids aged above 18 years operated upon with sutured haemorrhoidectomywere enrolled in the study. Exclusion criteria included concomitant anal disease (fistula, fissure etc), bleeding disorders, clinical AIDS and severe medical diseases. All patients received standardized pre-operative preparation and postoperative management.

Conventional open haemorrhoidectomywas performed according to the technique described by Salmon as cited by Watts[10]and sutured haemorrhoidectomy according to the technique described by Ferguson et al[11].All operations were done in lithotomy position under spinal anaesthesia. The data collected was entered into a structured questionnaire and analyzed by EPIINFO software. An independent observer measured the duration of operation. Post-operative pain scores and analgesicneed, time taken to resume normal working activities, post-operative complications, wound healing and patients overall satisfaction were measured by an assistant.

Results:

A total of forty patients with stage 3 and stage 4 disease were studied. There were 16 males and 24 females giving a M:Fratio of 1:1.5. The ages ranged from 20 to 72 years with a mean age of 35.9years (Table 1). Open haemorrhoidectoy (OH) was performed with more ease than Sutured haemorrhoidectomy (SH) and it took longer to perform SH than OH (Table 2). Average pain score in the suturedhaemorrhoidectomy (SH) group was 2.9 while that of the open haemorrhoidectomy (OH) group was 3.5as shown in Table 3.

Table 1 : Age distribution of patients

	Sutured haemorrhoidectomy(n=20)	**Open haemorrhoidectomy**(n=20)
Gender: Female	13	11
Male	7	9
Age: 20-40	15	10
41-60	4	9
61-80	1	1

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Table 2 : Ease and Duration of operation

	SH	OH	*P*-value	X^2
Ease of operation Mean +/- SD	1.85 +/- 0.366	1.20 +/- 0.410	0.000	16.518
Duration of operation Mean +/- SD	14.6 +/- 2.85	10.9 +/- 1.97	0.000	13.818

Table 3 : Post-operative pain and analgesia

	SH	OH	X^2	*P*-value
Pain score (mean)	2.90	3.50		0.054
Extra analgesia (number)	14 (70%)	10 (50%)	3.622	

On review after the first post-operative week, 5patients (25%) in the sutured group had partial wound dehiscence while one (5%) had complete wound dehiscence. Those who had partially separated wounds in the first week reported that they had experienced difficult defecation and had severe pain in the first 48 hours after operation.

On the second review, 2 weeks after operation, the wounds in all patients had healed. Only **7** patients (35%) in the open haemorrhoidectomy group had their wounds healed by the 3rdor 4th week after operation.

Four patients in the SH group had urinary retention within the first 24 hours following surgery as compared to 6 cases in the OH group. Two patients in the OH group had mild bleeding from the wounds.

The suturedhaemorrhoidectomy patients took an average of 10.6 days before resumption of normal activity while the open haemorrhoidectomy patients took 14.2 days (*P*-value= 0.027). The overall patient satisfaction mean score was 1.95 in the SH group and 1.80 for the OH group (*P*-value = 0.159).

Discussion:

Conventional haemorrhoidectomy with excision techniques are accepted as the most effective techniques for prolapsing third and fourth degree haemorrhoides[12,13]. In our study more females than males presented with symptomatic, prolapsedhaemorrhoids. This was in contrast with the findings by Dimmer et al[14]who reported more males. OH was performed with more ease than SH and it took longer performing SH than OH. More time was needed inthe SH group for the closure of the wound.

The current study has shown no statistical significant difference in average pain scores between the OH and groups (*P*-value =0.054). Watts et al[10], Ho[15]and Parks[9] reported that the usual cause of pain in operative haemorrhoidectomy is sphincter spasm and no anal operation is free from the risk of sphincter spasm. On analyzing pain with patient's satisfaction, it was noted that patients with higher pain scores expressed more dissatisfaction with the management (*P*-value = 0.028) and also took longer to resume their normal activities. However patients that underwent SH returned to their normal activities sooner than those of the OH group (*P*-value = 0.027).

In our series, only 7 (35%) patients in the open haemorrhoidectomy group had their wounds healed by the 4th week. Anderson[16], Watts et al[17] and Neto[18]had similar findings when they reported complete healing at 6weeks after OH. In the SH group healing was occurred in the first two weeks even with patients who had had wound dehiscence. Watts[17] and reported similar findings.

Milligan[19] reported postoperative bleeding and urinary retention following open haemorrhoidectomy. Two patients in our OH group had some spotting with blood during the first bowel motion that ceased thereafter. Four (20%) and six (30%) patients in the SH and OH groups respectively had urinary retention.

Urinary retention has been attributed to the spasm of the sphincter muscle of the urinary bladder that persists for about 20 hours after operation[21], an excess of intra-operative IV fluids and severe postoperative pain. It is also precipitated by the rectal pack or tube or both[18] and has been reported to be more common in the elderly men with prostatic enlargement[9]. Re-assurance, hot seitz baths and continued analgesia managed this.

Conclusions and Recommendations:

- OH was easier and quicker to perform.
- OH was associated with post-operative bleeding.
- SH was associated with faster rate of healing and earlier return to work.
- Post-operative pain was not related to the surgical technique used.
- Patients overall satisfaction was related to pain perception. The following are our recommendations:
- SH should be employed for the treatment of prolapsedhaemorrhoids since it offers better clinicaloutcome than OH.
- Further study is needed to determine long-term outcomeof SH.

REFERENCE

1. Goligher J.C. Surgery of the anus, rectum and colon. 5thed. London BailliereTindall, 1984. | 2. Dickey W., Garrett D. Haemorrhoid banding using Video-endoscopic anoscopy and a singlehanded ligator: An effective, inexpensive alternative to endoscopic band ligation. Am J Gasroenterol2000; 95:1714. | 3. Morinage K., Hasuda K., Ikeda Y., et al. A novel therapy for internal haemorrhoids: Ligation of the haemorrhoidal artery with a newly devised instrument (Moricorn) in conjunction with Doppler Flow meter. Am J Gastroenterol1999;90:1;10-613. | 4. Wannas H.R. Management of haemorhoids: a new approach.].RC..T. Ed., 1979;2:282. | 5. Palazzo F.F., Francis D.L., Clifton M.A. Randomized clinical trial of Ligasure TM versus open haemorrhoidectomy. BrJSurg2002;89:154-157 | 6. Mitchell A.B. A simple method of operating on piles. Brit. Med J. 1903; 1:482. | 7. Earle S.T. Diseases of the anus, rectum and sigmoid, Philadelphia, Lippincott. | 8. Ferguson J.A., Mazier W.P., Ganchrow M.I., et al. The closed technique of haemorrhoidectomy: A random trial. IntSurg 1992; 77:84. | 9. Parks A.G. the Surgical Treatment of haemorrhoids. Br J Jurg 1956; 53:337-351. | 10. WattJ. Mck., Bennett R.C., Duthe H.L., GoligherJ.C. Healing and pain after haemorrhoidectomy. Br J Surg 1964; 51:808-817. | 11. Ferguson JA, Mazier WP, Ganchrow ML et al. The closed technique of closedhaemorrhoidectomy. Arandom trial. IntSurg1992; 77:84. | 12. Sharif H., Lee L., Alexander-Williams J. How do I do it: diathermy haemorrhoidectomy.IntJColorectal Dis 1991; 6:217-79. | 13. Murie J.A., Dim A.J.W., Mackenzie I. Rubber band ligation Versushaemorhoidectomy for prolapsing haemorrhoids: a long term prospective clinical trial. Br J Surg 1982; 69:536-38. | 14. Christine Dimmer, Brian Martin, Noeline Reeves, Squatting for the prevention of haemorrhoids. Townsend letterfor Doctors andpatients. 1996; 159:60-79. | 15. Ho Y.H., Seow-Chen E, Tan M., et al. Randomized controlled trial of open and closed haemorrhoidectomy. Br J Surg 1964; 51:11. | 16. Anderson H.G. The after-results of the opeertivetreatment of haemorrhoids. Brit. Med.J. 1909; 2: 100. | 17. Watts J. Mck., Bennett R.C., et al. Healing and pain after haemorrhoidectomy. BrJSurg 1964;51:11 | 18. Reis Neto J.A., Quilici F.A., Corderiro E et al. Open versus semi-open haemorrhoidectomy: A random trial. IntSurg 1992; 77234. | 19. Milligan E.T.C., Morgan C.N. Surgical anatomy of the anal canal and operative treatment of haemorrhoids. Lancet 2: 11 19-24. | 20. Miles W.E. Observation upon internal piles. Surg. Gynec. 0bstet. 1919;29:496-5.