

Mucosal Advancement Haemorrhoidectomy in Grade III Hemorrhoids: In Bihar

Rajesh Narayan

Assistant Professor, Department of Surgery, Vardhman Institute of Medical Sciences, Pawapuri
Aryabhata Knowledge University, Patna, Bihar, India

Abstract:

Aim: The diagnosis of hemorrhoids is primarily based on the anoscopic examination. This study was conducted over a period of 10 years from January 2002 to December 2011. 137 patients with Grade III Hemorrhoids were selected from surgical OPD in Anupama Nursing Home, Patna for mucosal advancement haemorrhoidectomy.

Method: Each patient was subjected to sigmoidoscopy and/or colonoscopy to exclude other lesion higher up in recto sigmoid. Patients of fissure, fistulae and malignancy were excluded. All parameters were recorded and finally analyzed. Detailed history recording and dietary assessment evaluated.

Result: Mucosal advancement haemorrhoidectomy was done in all cases of Grade III Hemorrhoids. The statistical analysis of the study was done for descriptive statistics and correlation analysis for the final evaluation in a prospective cohort study. Positive family history was present in 30% patients. Mucosal advancement haemorrhoidectomy resulted in 96% control of bleeding patients assessment showed excellent result in 70% moderate improvement in 20% and no improvement in 10% after modified mucosal advancement Haemorrhoidectomy. Mean age of presentation was 41.8 years. Male to female ratio was 7:3

Conclusion: Mucosal advancement haemorrhoidectomy is a safe and effective method of hemorrhoidal treatment as it excises most of the hemorrhoid plexus of veins producing lasting result.

Keywords- Anoscopy, Colonoscopy, Haemorrhoidectomy, Mucosal advancement haemorrhoidectomy, Sigmoidoscopy.

I. Introduction

The anal canal is lined in upper 2/3 by columnar epithelium and in the lower 1/3 by the squamous epithelium, which meets at the dentate line. In the upper anal canal, there are sub epithelial vascular cushions continuous with the rectal columns above which when distended give stellate cross section to anal lumen. These cushions are suspended in the anal canal by a connective tissue framework derived from internal anal sphincter and longitudinal muscle of the rectum. Within each cushion is a venous plexus that is fed by arteriovenous communication Hemorrhoids results from the pathological change in prolapsed anal column. [1] Internal haemorrhoids are classified into four degrees depending on the extent of prolapse.

Park classification is helpful in assessing different therapies.

Grade I	Bleeding without prolapse
Grade II	Prolapse with spontaneous reduction
Grade III	Prolapse with manual reduction
Grade IV	Incarcerated, irreducible prolapse

Patients present with bright red blood per rectum or prolapsing and mass. Soiling may occur in third or fourth-degree hemorrhoids as a result of impaired continence or mucous discharge. Assessment should include digital rectal examination (DRE) and anoscopy in Sim's position. The hemorrhoidal cushions can be viewed at 3, 7, 11 o' Clock in lithotomy position. Sigmoidoscopy and Colonoscopy done to exclude any other rectal diseases. Treatment is classified in three categories as per guidelines issued by the American Society of Colon and Rectal Surgeons [2]

- Conservative treatment which consists of increasing dietary fiber, avoid straining at stools and prolonged staying on toilet, mild astringent and steroids that provide short term relief.
- Minimally invasive procedures which include rubber band ligation [3] injection sclerotherapy [4] infrared coagulation [5] anal stretch [6] cryosurgery [7] laser haemorrhoidectomy [8] and Doppler- Guided Haemorrhoidal ligation [9]
- Surgical therapy includes. Minimally invasive procedures which include Milligan Morgan ligature and excision, [10] Hill-Ferguson haemorrhoidectomy [11] Stapled haemorrhoidectomy [12] and Whitehead haemorrhoidectomy [13] and modified Mucosal advancement haemorrhoidectomy [14]

The present study evaluates the result of modified mucosal advancement haemorrhoidectomy and proves its efficacy in Grade III hemorrhoids

II. Materials And Methods

A prospective Cohort study was conducted from January 2002 to December in Anupama Nursing Home Patna Bihar, India. Detailed clinical history was taken in all the patients with particular reference to bleeding per rectum constipation, prolapse, and painful defecation discharge per rectum, dietary habits and family history of hemorrhoids. Detailed general physical examination was done in all patients. Each patient was subjected to local examination (DRE), anoscopy, proctoscopy and sigmoidoscopy and/or colonoscopy. Baseline investigations included CBC, KFT, B Sugar, HB_sA_g, HCV, urine examination, CXR and ECG were done in all patients. All the patients were given proctoclysis enema in the evening and the morning before surgery. All the patients were kept fasting 8 hours prior to surgical procedure of mucosal advancement Haemorrhoidectomy and T- bandage applied on after operation Liquid & semisolid meals allowed after passing of flatus. Purgative advised in night and Seitz bath given twice daily for 7 days. Patients discharged on 7-10 days postoperatively. Patients were discharged and followed up. All the patients were advised days to report in causality in case of any complication in the form of bleeding per rectum pain, fever swelling, discharge etc. Assessment done at / month 3m, 6m and 1 year then yearly for 6 years post procedure regarding effect of treatment.

Procedure of operation

Under General Anesthesia with endotracheal intubation and patients on I.P.P.V. Laryngeal mask airway secured in the patient. Intubated patient is placed at the edge of the operation table, broken and sandbag placed under the buttocks. Legs are bent at the hips, knee in extended in a Trendelenberg position. Patient placed in noninvasive multimodular monitor Perianal incision given. The mucosa is denuded from the submucosa all around and advanced 4-5 cm beyond the anal margin. Hemostasis secured. The excess of anal mucosa in excised. If there is any prolapsed in the rectum modified Thiersch's bite is taken in the levator ani musculature using (No 1 Vicryl) Polydioxone 910 in interrupted manner. The mucosa is then stitched using 2/0 chromic catgut in interrupted fashion. T-bandage applied after the operation.

III. Result

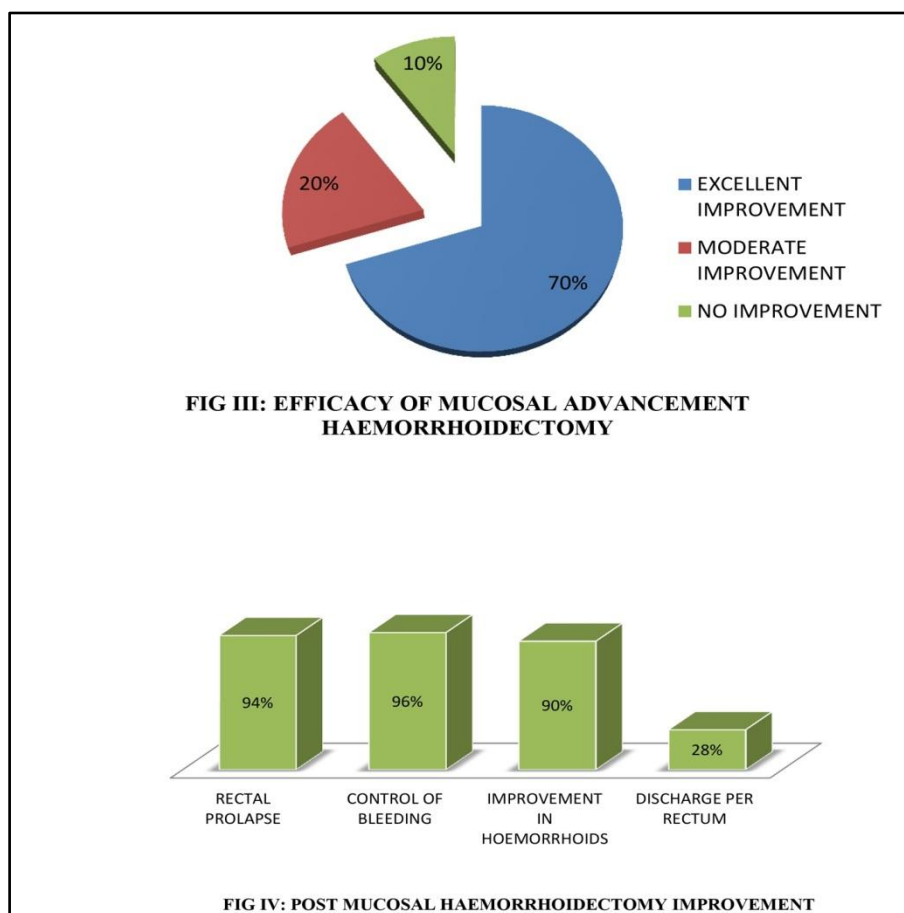
The commonest symptoms were prolapse 100% and bleeding P/R 94% and least common was discharge per rectum 28%. All the patients were non vegetarians with less fiber in their diet. Positive family history of hemorrhoids was present in 30%. Proctoscopic/Anoscopic examination revealed that 38% had Grade III Hemorrhoids in all procedural follow up revealed the following features. Mucosal advancement haemorrhoidectomy resulted in 96% control of bleeding. Spontaneous reduction of prolapse 94% seen after haemorrhoidectomy. Effect on manual reduction of prolapse occurred in 87.5% patients after haemorrhoidectomy. Patients assessment of treatment showed excellent improvement in 70% moderate improvement in 20% and no improvement in 10% after mucosal advancement haemorrhoidectomy. Mucosal discharge were noticed in 11.8% patients which subsided after pelvic floor excise. Mucosal prolapse seen in 3.8% patients of Grade III Haemorrhoids which responded to pelvic floor exercise. Mucosal advancement Haemorrhoidectomy aims to excise most of the haemorrhoidal plexus of veins to produce symptomatic relief. It is performed on inpatient basis requiring anesthesia and further hospital stay in post-op period of 5-6 days. The mean age of the patients in my series was 41.8 years comparable to that reported by Murie [14] who reported the mean age of 50±12 years. Konings [15] reported mean age of 51 years and Hosch [16] 50 years. The overall Male Female ratio in our study was 7:3 the finding correlate well with male preponderance noted by Stefan [16] 2:4:1 Sohn [17] 2:75:1 Murie [14] 1:8:1 Rectal bleeding in my series was 94% which correlate with findings of Steinberg [19] 91.2% , O' Regan et al [20] 98% Hosch [16] 82% and Murie [18] 84% Rectal prolapse was present in 100% of our patients comparable to finding of Murie [18] 100% However our study is at variance with that of Steinberg [19] and O' Regan [20] who reported prolapse in 64% and 62% of their patient respectively. Discharge per rectum which was present in 28% of our patients comparable with that of Steinberg et al [19] 23.2%



FIG I: GRADE III HAEMORRHOIDES



FIG II: MUCOSAL ADVANCEMENT IN PROGRESS



35% Constipation in our series was reported in 64% of patients which varies from Western finding of Broader [22] 10%. This variance could be explained by sociocultural and climatic condition, non-vegetarian diet, decreased fiber content in diet prolonged squatting and diminished water intake and prolonged sweating. Anaemia in our series was present in 17% cases this is at variance with the study conducted by Wolff [23]. Who reported anemia in 4% of 484 patients. At 6 month follow up, we observed no bleeding in 80% in the haemorrhoidectomy group above findings closely correlated with those of Murie et al [18] and Steinberg [19] and Panda [24]. 92% patients following haemorrhoidectomy in Grade III haemorrhoids had no prolapse which closely correlated with finding of Murie, Steinberg and Panda Grade III haemorrhoids, 87.5% reported no prolapse.

IV. Summary And Conclusion

There are many treatment modalities presently available for hemorrhoids ranging from dietary modification, lifestyle change and minimal invasive methods to Haemorrhoidectomy. The need for treatment for hemorrhoids is primarily based on the severity of the symptoms. Mucosal advancement haemorrhoidectomy help in excision of the haemorrhoidal plexus of veins and concomitant modified Theirsch's repair to reduce the mucosal prolapsed. Mucosal advancement haemorrhoidectomy are effective in third degree hemorrhoids. Haemorrhoidectomy aims to excise most of the hemorrhoid plexus of veins produces lasting results. Mucosal advancement haemorrhoidectomy controls hemorrhoids and prolapsed with modified Theirsch's repair

Contact of interest : **None**

Funding : **None**

Ethical Issue : **None**

Acknowledgment

The author acknowledges the immense help received from the scholars whose articles are cited and included in references of this manuscript. The author is also grateful to authors/ editors publishers of all those articles, journals and books from where the literature of this article has been reviewed and discussed. The author is thankful to all his patients and attendants for providing the informed consent for the work. The author is thankful to Padma Shree Prof. Narendra Prasad, Ex Head, Department of Surgery Patna Medical College and Hospital for his blessing and guidance and Dr. Alok, Abhijit, Director Anupama Nursing Home Patna where the present work was conducted and analyzed. The author is indebted to Anmol Narayan for Conceptualizing the bar diagram and pie chart.

References

- [1] Thomson WH (1975) The nature of hemorrhoids. *BJS* 62:542-552
- [2] American society of colon and rectal surgeons (1993) Practice parameters for the treatment of haemorrhoids. *Dis Colon Rectum* 36:1118-1120
- [3] Barton J (1963) Office ligation treatment of hemorrhoids. *Dis Colon Rectum* 6:109-113
- [4] Sato SC, Novell JR, Khowry G, Winslet MC, Lewis AA (1993) Long term results of large dose, single-session phenol injection sclerotherapy for hemorrhoids. *Dis Colon Rectum* 36:958-691
- [5] Leicesters RS, Nicholls R1, Chair Met et al (1981) Infra-red coagulation: a new treatment for hemorrhoids. *Dis Colon Rectum* 24:602-605.
- [6] Lord PH (1969) A day case procedure for the cure of third degree hemorrhoids. *Br J Surg* 56:747-749.
- [7] Buls J.G, Goldberg SM (1978) Modern management of hemorrhoids. *SurgClin North Am* 58:469.
- [8] Hodgson WJ, Morgan I (1995) Ambulatory haemorrhoidectomy with CO₂ laser. *Dis Colon Rectum* 38:1265
- [9] Moringa K, Hasuda K, Ideda T et al (1995) A novel therapy for internal hemorrhoids: ligation of the haemorrhoidal artery with a newly devised instrument (Moricom) in conjunction with a Dopp-ler flow meter. *Am J Gastroenterol* 90:610
- [10] Ferguson JA, Mazier WP, Ganchrow MI, Friend WG (1971) the closed technique of hemorrhoidectomy. *Surgery* 70:480
- [11] Reis Neto IA, Quilici EA, Cordiro F, Rcisjunior JA (1992) Open versus semi open hemorrhoidectomy: a random trial. *IntSug* 77:84
- [12] Rowse!! M, Bello M, Hemingway DM (2000) circumferential mucosectomy (stapled haemorrhoidectomy) versus conventional haemorrhoidectomy: randomised controlled trial. *Lancet* 355:779
- [13] Whitehead W (1882) The surgical treatment of hemorrhoids. *Br Med J* 1:148
- [14] Murie JA, Mackenzie I, Sim AJ (1980) Comparison of rubber band ligation and hemorrhoidectomy for second and third degree haemorrhoids: a prospective clinical trial. *BJS* 67(111):786-788
- [15] Konings M, Dcbets 1M, Baeten CG (1999) Rubber band ligation of hemorrhoids: symptoms almost gone after 6 weeks but many patients need retreatment in the long run. *Ned Tijdschr Geneesk* 143(24):1265-8
- [16] Hosch SB, Knoefel WT, et al (1998) surgical treatment of piles. prospective randomized study of Parks vs Milligan Morgan hemorrhoidectomy. *Dis Colon Rectum* Feb 159-164
- [17] Sohn N, Aronoff 1S, Cohen FS et al (2001) Transanal haemorrhoidalarterialization is an alternative to operative haemorrhoidectomy. *Am Surg* 182(2001):515-519
- [18] Murie JA, Sim AJ, Mackenzie I (1981) the importance of pain, pruritis and soiling as symptoms of haemorrhoids and their response to haemorrhoidectomy or rubber band ligation. *BJS* 68 (4):247-249
- [19] Steinberg DA, Liegeois Hi, Willaims A (1975) Long term review of the results of rubber band ligation of haemorrhoids. *BJS* 62:144-146
- [20] O'Regan PJ (1999) Disposable device and a minimally invasive technique for rubber band ligation of haemorrhoids. *Dis Colon Rectum* 42(5):683-685
- [21] Vellacott KD, Hardcastle JD (1980) is continued anal dilatation necessary after a Lords procedure for haemorrhoids. *Dis Colon Rectum* 13.15 67:658-659

- [22] Broader IH, Gunn IF, Williams A (1974) Evaluation of a bulk forming evacuant in the management of haemorrhoids. *BJS* 61:142-144
- [23] Wolff BJ, Culpp CE (1988) the whitehead haemorrhoidectomy. An unjustly maligned procedure. *Dis Colon Rectum* 31:587-590
- [24] Panda AP, Laughton IM, Elder IB, Gillespie IE (1975) Treatment of haemorrhoids by rubber band ligation. *Digestion* 12 (2):85-91
- [25] Murie JA, Sim AI, Mackenzie I (1982) Rubber band ligation versus haemorrhoidectomy for prolapsing haemorrhoids: a long term prospective clinical trial. *835* 69:536-538
- [26] Cheng FC, Shum DVv', Ong GB (1981) The treatment of second degree haemorrhoids by injection, rubber band ligation, maximal anal dilatation and haemorrhoidectomy: a prospective clinical trial. *Aust NZ J Surg* 51(5):458-462
- [27] Lewis AAM, Rogers HS, Leighton M (1982) Trial of maximal anal dilatation, cryotherapy and elastic band ligation as alternative to haemorrhoidectomy in the treatment of large prolapsing haemorrhoids. *BJS* 70:54-56
- [28] Bayer I, Myslovaty B, Picovsky BM (1996) Rubber band ligation of hemorrhoids: convenient and economic treatment. *J Clin Gastroenterol* 23:50-52
- [29] MacRae HM, Mcleod RS (1995) Comparison of haemorrhoidal treatment modalities: a meta-analysis. *Dis Colon Rectum* 38:687-694
- [30] Wiener V (1977) Ambulatory hemorrhoidectomy through rubber band ligation-review of the literature. *FortschrMed* 95 (251):1619-1622
- [31] Bennett RC, Friedman MHW, Goligher JC (1963) late results of haemorrhoidectomy by ligation and excision. *BMJ* 2:216-21.