AN EVALUATION OF SYMPTOM RELIEF IN HEMORRHOIDS WITH STAPLED HEMORRHOIDECTOMY

Rakesh Rai[1], H. Sunil Sudarshan[2], P.S. Aithala[3], Pradeep Kumar T[4], Uday Kumar[5]

HOW TO CITE THIS ARTICLE:
Rakesh Rai, H Sunil Sudarshan, PS Aithala, Pradeep Kumar T, Uday Kumar. "An evaluation of symptom relief in hemorrhoids with stapled hemorrhoidectomy". Journal of Evolution of Medical and Dental Sciences 2013; Vol. 2, Issue 45, November 11; Page: 8776-8781.

BACKGROUND: Hemorrhoids are vascular cushions within the anal canal. Hemorrhoidal disease is probably one of the oldest ills known to mankind since the time he assumed the upright position which leads to enormous pain, discomfort, and reduced quality of life. Many advances have taken place in treatment of Hemorrhoidal disease in the recent past with the marriage of technology with surgery, stapled hemorrhoidectomy is one of the fruits of this union which carries the advantage that the whole pedicle of the vascular cushion along with the prolapsed mucosa which often associated with haemorrhoids is taken care in one setting with very less chances of complications like stenosis which are common with open hemorrhoidectomy, the most common procedure done for haemorrhoids in the developing countries. **AIMS:** In view of the above said we considered to study the effectiveness of stapled hemorrhoidectomy in symptomatic relief for treatment of haemorrhoids. **METHODS AND MATERIAL:** This is a prospective study of 50 cases that underwent stapled hemorrhoidectomy at Father Muller Medical College, Mangalore, Karnataka, India between May 2011 and October 2012 for symptomatic second degree haemorrhoids chosen by purposive sampling technique. **Statistical Analysis:** Binomial probability pre-post test were used for statistical analysis, p value less than 0.05 was considered significant. **RESULTS AND CONCLUSIONS:** No major post procedure complications as sepsis, vasovagal reflex were observed. Only 30 patients had discomfort following procedure, which lasted for 1-2 days and 41 patients did not need pain relief, 40 patients returned to work just within a week of procedure. As of symptom improvement post procedure compared to at presentation only 6 patients had bleeding post procedure out of 45 patients who had bleeding at presentation p value of which was significant as p value=0.00025, 2 patients had pain post procedure out of 12 patients who had pain at presentation p value-0.00314 was found significant. No patient had irritation or discharge post procedure. In this study we concluded that stapled hemorrhoidectomy for 2nd degree haemorrhoids is a effective modality of treatment which is convenient, simple and has high patient acceptance with limitations of cost factor.

KEYWORDS: stapled hemorrhoidectomy, Grade 2 haemorrhoids .

INTRODUCTION: Haemorrhoids are among the earliest diseases in medical history which are attributed as causing perpetual discomfort of mankind affecting every age and status alike. The exact prevalence of haemorrhoids in general population is not known many patients because people with few or no symptoms do not go for a medical consult. Studies done at the Mayo clinic as early as 1960 recorded the prevalence of 52% in a large series of patients examined proctoscopically suggesting that one out of two in a given population suffer from hemmorhoides at some time in life or other [1]. For the treatment of haemorrhoids various modalities have been tried ranging from dietary modifications to open surgery Hemorrhoidectomy. Each procedure has its own complications and

advantages, also newer modalities like rubber band ligation and stapler hemorrhoidectomy are emerging which can be done as a day care surgery. With the advances in the field of science and technology and its influence on the medical field various newer instruments and techniques are available for the treatment of haemorrhoids stapled hemorrhoidectomy is a one of the fruits of this union in which carries the advantage that the whole pedicle of the vascular cushion along with the prolapsed mucosa which often associated with haemorrhoids ' is taken care of in one setting with very less chances of complications like stenosis, urinary retention which is common with open hemorrhoidectomy, which is the most common procedure done for haemorrhoids in the developing countries. In view of this we studied the effectiveness of stapled hemorrhoidectomy in symptomatic relief for treatment of haemorrhoids .

METHODS: This was a prospective study conducted at Father Muller Medical College, Mangalore, Karnataka, India between May 2011 and October 2012, after obtaining an ethical clearance for the study. All consenting patients who were symptomatic for second degree haemorrhoids chosen by purposive sampling technique after they met the predefined criteria which excluded patients who had undergone prior intervention for haemorrhoids, patients on evaluation found to have pathological haemorrhoids or bleeding tendencies. history and clinical examination and who were fit for anaesthesia. Patients who were chosen were explained of the various options available for the treatment of haemorrhoids along with their advantages and disadvantages and they were allowed to choose the line of treatment they preferred.50 patients who choose stapled hemorrhoidectomy as the treatment modality were included in the study. Patients were prepared for the procedure as follows.nil by mouth for a minimum of 6 hours prior to surgery. Mechanical bowel cleansing was done using two phosphate enemas before the panned surgery, one at night and the other at the morning of surgery. A third generation cephalosporin was given an hour before and 6 hours after the procedure. The stapled procedure was done according to the technique described by Longo and his colleagues using Proximate Hemorrhoidal Circular Stapler, following the procedure hemostasis was confirmed, if any bleeding points were noted they were controlled using cautery. Postoperatively analgesic was given only if patient had pain paracetamol 650 mg as oral preparation was used for analgesia, no analgesic was used for discomfort; following three hours of intensive care in a high dependency post operative ward patient was shifted to the ward. Patient was given sitz bath twice daily, and syrup lactulose 20 ml twice daily was used as stool softener. Patients were discharged 24 hours after the procedure if no complications occurred, and were prescribed lactulose 20 ml twice daily until return of normal bowel function and they were stable with stool softeners .they were asked to review after a week for follow up.

RESULTS: Out of the 50 patients I our study, the demographic evaluation revealed 49 were males and 1 females. Forty four patients were from rural and 6 from urban areas. The patients fell in the age range 28 to 55 years with a mean of 34.2 years; the commonest age group was between 21- 30 years (32%).

The symptoms with which the patients presented were bleeding per rectum (98%), mass per rectum (4%), perianal discomfort (24%) and constipation (76%). Digital rectal evaluation did not reveal any finding in 48 cases (98%) and slightly lax anal sphincter in 1 case (2%). Rigid sigmoidoscopy done intraoperatively was normal in all cases in the study group.

Outcome of the procedure

Symptom	Pre –Procedure		Post-Procedure		Statistical significance
	Number	Percentage	Number	Percentage	
Bleeding per rectum	45	90	6	12	p value=0.00025*
Perianal discomfort	12	24	2	8	p value-0.00314*

*<0.05 means statistically significant

Post-Procedure pain/discomfort: Post stapled hemorrhoidectomy vague discomfort was experienced by most patients, which lasted for about three days. This discomfort was categorized as no discomfort, slight discomfort which could be tolerated and moderate discomfort which needed medication.

Post-Procedure pain	Number	Percentage
No discomfort,	20	40
Slight discomfort	28	56
Moderate discomfort	2	4

Complications following the procedure: One patient had urinary retention in our study, no patient had, sepsis or vaso-vagal reflex.

DISCUSSION: Haemorrhoids are one of the oldest and most common problems which have been tormenting mankind since the beginning of history. In a study by Cohen it was estimated that one third of the patients affected by haemorrhoids present to surgeons for treatment.[2] This is one disease which is better prevented before occurring as once this disease sets in, it only progresses to become worse with time [3].

Profuse external haemorrhage often occurs in early stages of second degree haemorrhoids, occasionally leading to severe anaemia; internal haemorrhoids if prolapsed can get gripped by the external sphincter and sometimes undergoes strangulation. When they give rise to severe pain. Strangulation if not reduced early it progresses to thrombosis. Followed by superficial ulceration of exposed mucous membrane often accompanies strangulation with thrombosis[4]. Fibrosis , fibrous polyp are some of the rare but known complications of haemorrhoids.

Many advances have occurred in the treatment of colorectal diseases including the management of haemorrhoidal disease traditional techniques to modifications of traditional techniques to the more sophisticated minimally invasive techniques[5,6]. In 1993 Stapled hemorrhoidectomy was introduced, but this method was modified and popularised in 1998 by Longo[7] using a transanal circular stapler which excised a complete circumferential strip of rectal mucosa above the dentate line lifting the prolapsed haemorrhoidal tissue and removing the redundant mucosa by stapling off the end branches of the superior haemorrhoidal vessel.

There were many trials which compared stapled hemorrhoidopexy with traditional hemorrhoidectomy were developed to test the efficacy of the technique and found the latter better.[8-13]

In the study by Ruffinhood [14]which included 24 patients the mean age of distribution of haemorrhoids were 25- 70 years. In the study by KhubChandani[15] which included 100 patients the

mean age of distribution of haemorrhoids was 25-85 years. In the study by Lee [16]which included 117 patients the mean age of distribution of haemorrhoids was 19-85 years. When this was compared with our study we found that the mean age group in our study was 34.2 years.

The control of pain following traditional hemorrhoidectomy is one of the most common problems faced by surgeons. The studies done on treatment options o to reduce the post operative pain are so many which give an insight to the seriousness of this issue.[17-21]

Various studies have shown that there is decrease in the postoperative pain[22-24], analgesic requirement, in stapled hemorrhoidectomy which is comparable with our study. The length of hospital stay is also lesser along with shorter recovery time and return to normal daily activities [25-28].the results of these studies are comparable with our study in which all 50 patients in the study went home within 48 hours of procedure and 40 of the 50 in the study returned to their normal activities within a week of the procedure. When we studied the efficacy of stapled hemorrhoidectomy in symptom relief we found that 98% of the patients had symptom relief before discharge and all patients were symptom free at one week of discharge. The patients were followed for a year and during this period none of them had recurrence of clinical symptoms or haemorrhoids' when evaluated proctoscopically.

CONCLUSION: In this study we concluded that stapled hemorrhoidectomy for 2nd degree haemorrhoids is a effective modality of treatment which is convenient, simple and has high patient acceptance with limitations of cost factor.

Acknowledgments:

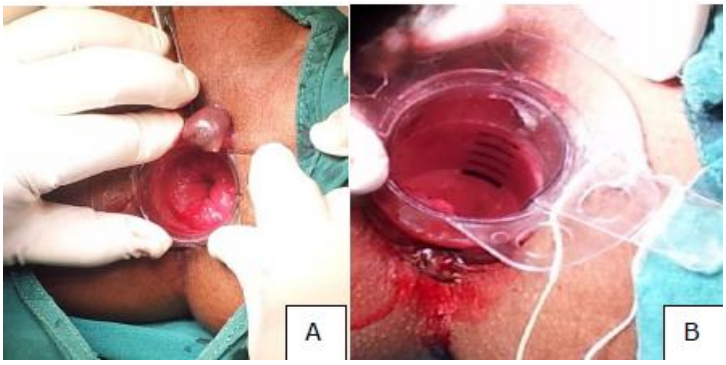
1. To all the unit heads of the surgical units for supporting in conducting the study
2. To the administration of the institution for allowing to conduct the study
3. To the anaesthesia and general residence for their prompt services whenever required

REFERENCES:

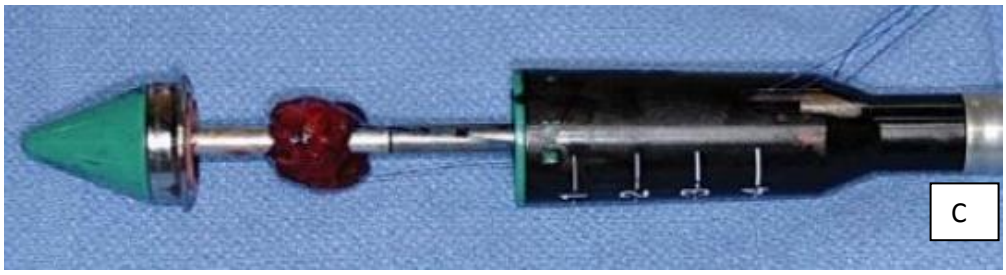
1. Buie, L.A: Practical Proctology.1960: 2nd ed; pg.737-740.
2. Cohen Z. Alternatives to surgical haemorrhoidectomy. Can J Surg. 1985;28:230–1.
3. Brisinda G: How to treat haemorrhoids. Prevention is best; haemorrhoidectomy needs skilled operators.: BMJ. 2000 Sep 9; 321(7261):582-3.
4. Russell RCG, Norman S. Williams, Christopher J. K. Bulstrode. Bailey and Love: Short Practice of Surgery, 24th ed, 72: 1255-1262.
5. Agbo S. P.: Surgical Management of Haemorrhoids : J Surg Tech Case Rep. 2011 Jul-Dec; 3(2): 68–75.
6. Madoff RD, Fleshman JW. American gastroenterological association technical review on the diagnosis and treatment of haemorrhoids . Gastroenterology 2004; 126: 1463-1473
7. Longo A. 6th world congress of Endoscopy Surgery. Naples: Mundozzi Editore; 1998. Treatment of haemorrhoidal disease by reduction of mucosa and haemorrhoidal prolapse with a circular stapling device: A new procedure; pp. 777–84.
8. Ortiz H, Marzo J, Armendariz P. Randomized clinical trial of stapled hemorrhoidopexy versus conventional diathermy hemorrhoidectomy. Br J Surg. 2002;89:1376-81

9. Ganio E, Altomare DF, Gabrielli F, Milito G, Canuti S. Prospective randomized multicentre trial comparing stapled with open hemorrhoidectomy. Br J Surg. 2001;88:669-74.
10. Hetzer FH, Demartines N, Handschin AE, Clavien PA. Stapled vs excision hemorrhoidectomy long-term results of a prospective randomized trial. Arch Surg. 2002;137:337-40.
11. Lohsiriwat V Hemorrhoids: From basic pathophysiology to clinical management: World J Gastroenterol. 2012 May 7; 18(17): 2009-2017
12. Khalil KH, O'Bichere A, Sellu D. Randomized clinical trial of sutured versus stapled closed hemorrhoidectomy. Br J Surg. 2000;87:1352-5.
13. Habr-Gama A, Silva-e-Sousa Jr AH, Rovelo JMC, Souza JS, Benício F, Regadas FSP, Wainstein C, Cunha TMR, Marques CFS, Bonardi RA, Ramos JR, Pandini LC, Kiss DR. Stapled hemorrhoidectomy: initial experience of a Latin American group. J Gastrointest Surg. 2003;7:809-13.
14. Ruffinhood T, Alexander Williams J. Anal dilatation versus rubber band ligation for internal haemorrhoids . Method of treatment in outpatients. Am J Surg 1971; 122: 545-548.
15. Indru T. Khubchandani MD. A randomized comparison of single and multiple rubber band ligations. Dis Colon Rectum 1983; 26: 705-708
16. Henry H Lee, Robert J Spencer, Robert W Beart Jr. Multiple hemorrhoidal bandings in a single session. Dis Colon Rectum 1994;37;37-41.
17. Carapeti EA, Kamm MA, McDonald PJ, et al. Double-blind randomised controlled trial of effect of metronidazole on pain after day-case haemorrhoidectomy. Lancet. 1998;351:169–72.
18. Wasvary HJ, Hain J, Mosed-Vogel M, et al. A randomized, prospective, double-blind, placebo-controlled trial of effect of nitroglycerin ointment on pain after hemorrhoidectomy. Dis Colon Rectum. 2001;44:1069–73.
19. Kanellos I, Zacharakis E, Christoforidis E, et al. Usefulness of lateral internal sphincterotomy in reducing postoperative pain after open hemorrhoidectomy. World J Surg. 2005;29:464–8.
20. Goligher JC, Graham NG, De Dombal FT, et al. The value of stretching of anal sphincters in the relief of pain after haemorrhoidectomy. Br J Surg. 1969;56:390.
21. Ho YH, Seow-Choen F, Low JY, et al. Randomised controlled trial of trimebutine (anal sphincter relaxant) for pain after haemorrhoidectomy. Br J Surg. 1997;84:377–9.
22. Hetzer FH, Demartines N, Handschin AE, Clavien PA: Stapled vs excision hemorrhoidectomy: long-term results of a prospective randomized trial. Arch Surg. 2002 Mar;137(3):337-40.
23. Mario Pescatori :Pain after stapled haemorrhoidectomy: The Lancet,2000 Dec;356,2188, 23 December 2000.
24. Nisar PJ, Acheson AG, Neal KR, Scholefield JH.:Stapled hemorrhoidopexy compared with conventional hemorrhoidectomy: systematic review of randomized, controlled trials. Dis Colon Rectum. 2004 Nov; 47(11):1837-45.
25. Touzin E, Hegge S, McKinley C :Early experience of stapled hemorrhoidectomy in a community hospital setting :Can J Surg. 2006 October; 49(5): 316–320.
26. Rowsell M, Bello M, Hemingway DM. Circumferential mucosectomy (stapled haemorrhoidectomy) versus conventional haemorrhoidectomy: randomized controlled trial. Lancet2000;355:779-81. [PubMed]
27. Mehigan BJ, Monson JRT, Hartley JE. Stapling procedure for haemorrhoids versus Milligan-Morgan haemorrhoidectomy: randomized controlled trial. Lancet2000;355:782-5.

28. Khalil KH, O'Bichere A, Sellu D. Randomized clinical trial of sutured versus stapled closed haemorrhoidectomy. Br J Surg2000;87:1352-5.



A. INSERTION OF ANOSCOPE
B. FIXATION OF ANOSCOPE



C .THE HEMORRHOID EXCISED WITH THE STAPLER TECHNIQUE

AUTHORS:

1. Rakesh Rai
2. H. Sunil Sudarshan
3. P.S. Aithala
4. Pradeep Kumar T.
5. Uday Kumar

PARTICULARS OF CONTRIBUTORS:

1. Associate Professor & Unit Chief, Department of General Surgery, Father Muller Medical College.
2. Assistant Professor, Department of General Surgery, Father Muller Medical College.
3. Professor, Department of General Surgery, Father Muller Medical College.
4. Senior Resident, Department of General Surgery, Father Muller Medical College.
5. Resident, Department of General Surgery, Father Muller Medical College.

NAME ADDRESS EMAIL ID OF THE CORRESPONDING AUTHOR:

Dr. Rakesh Rai,
Associate Professor,
Father Muller Medical College,
Kankanady, Mangalore – 575002.
Email – dr.rakeshrai@gmail.com

Date of Submission: 25/10/2013.
Date of Peer Review: 26/10/2013.
Date of Acceptance: 28/10/2013.
Date of Publishing: 06/11/2013