



STAPLED HAEMORRHOIDECTOMY: A NOVEL TREATMENT OF GRADE III & GRADE IV HAEMORRHOID - OUR EXPERIENCE OF 200 PATIENTS

Arun Singh

Vidur Jyoti

Akhilesh Pandey

ABSTRACT

OBJECTIVE: To describe our experience with 200 patients of stapled haemorrhoidectomy for treatment of grade III & grade IV hemorrhoid

METHOD: This prospective study was conducted in Max Superspeciality Hospital, Gurgaon from January 2011 to January 2016, 200 patients who underwent stapled haemorrhoidectomy for treatment of Grade III & Grade IV haemorrhoids. Parameters recorded included presenting complains, operative time, post operative complications, analgesic requirement, duration of hospital stay, return to work and patient satisfaction. Patients were followed up at 1 week, 3 week and then 6 monthly upto 1 year.

RESULT: Out of 200 patient that underwent stapled haemorrhoidectomy 152 (76%) were male and 48 (24%) were female. Mean age was 40 years. The mean operative time was 30 min. 186 (93%) patient required only single dose of IV analgesic while 14 (7%) patient needed 2 IV analgesic in first 24 hour. There was no major intraoperative or post operative complication except for urinary retention in 22 (11%) patients. All patient received oral analgesics alone after 24 hours. 192 (96%) patient had overnight stay. Nearly 75% patient had complete resolution of symptoms and return to work within a week. Satisfaction data showed that 93% patients were completely satisfied with operative procedure at initial follow up, which increased to 99% after 6 month.

CONCLUSION: Our present study showed that stapled haemorrhoidectomy is a safe, rapid, well tolerated with low rate of complication, low post operative analgesic requirement, shorter hospital stay, high patient satisfaction and early return to their to the routine work

KEYWORDS: Haemorrhoids, haemorrhoidopexy, Staple, Longo Technique

INTRODUCTION:

About 5% of general population suffer from symptom of haemorrhoids and one third seeks medical treatment⁽¹⁾. Traditionally Milligan -Morgan haemorrhoidectomy has been the standard procedure for treatment of grade 3 and 4 haemorrhoids but is a very painful procedure and considerable post operative nursing care is needed for up to one month.

It was introduced by Longo in 1998⁽²⁾. The procedure involves removal of a circumferential strip of mucosa and sub mucosa about 4 cm above the dentate line with a circular stapler, interrupting the haemorrhoidal vessels⁽³⁾. Several studies have suggested that stapled haemorrhoidectomy can be safely performed as a day care procedure^(4,5,6). Several authors have shown post operative pain was much less than with conventional technique^(3,7, 8,9). Thus stapled haemorrhoidectomy is an effective treatment with low morbidity, high patient satisfaction and good long-term control of haemorrhoidal symptoms.⁽¹⁰⁾

MATERIAL AND METHOD:

This study was conducted in Max Superspeciality Hospital, Gurgaon from January 2011 to January 2016 over 200 patients who underwent stapled haemorrhoidectomy for treatment of Grade III & Grade IV haemorrhoids. Patients who presented in the Surgery OPD with clinical history of per rectal bleeding, perianal prolapse, constipation associated with or without discharge and pain underwent digital rectal examination and proctoscopic evaluation. Those with grade III and grade IV haemorrhoids were treated by stapled haemorrhoidectomy using Ethicon Endosurgery PPH 30mm circular stapling device and EEA33mm Covedien stapler. All patients were admitted on day of admission. An informed consent was taken from all the patients.

OPERATIVE TECHNIQUE

The operative position of the patients selected was lithotomy and all patients received parenteral antibiotic dose at the time of induction of anesthesia. After taking all aseptic precautions, the procedure of

stapled haemorrhoidectomy was performed according to Longo's technique. A circular anal dilator was placed and fixed to the skin. A purse string suture of 2-0 prolene was inserted at about 4 centimeters above the dentate line catching only the mucosa and sub mucosa with the help of a purse-string suture anoscope. The distance of the purse string suture from the dentate line should be directly proportional to the extent of the prolapse so as to position the staple line at least 2cms above the dentate line. A well lubricated 33 mm stapling instrument with a fully opened position was inserted and the anvil was positioned above the purse string. The purse-string was snugged down on the shaft of the stapler and tied. The stapler was closed and fired and held closed for 30 seconds to aid in homeostasis. In females posterior vaginal wall was checked before firing the stapler to prevent entrapment. The stapler was then one turn anticlockwise opened to its maximum and gently withdrawn. The staple line was inspected for bleeding and any spurting point was over sewn with polygalactin 3-0. At the end of operation, anal canal was packed with gauze dressing impregnated with 2% Lignocaine gel which was removed in the evening of day of surgery. The doughnut was checked for its completeness

Sitz bath and stool softener were prescribed for 7 days post operatively. Almost all the patients were discharged on first post operative day. They were followed up in the surgery OPD after 2 weeks, then after 2 months, 6 months. The results of SH were evaluated on the basis of relief of symptoms, severity of post operative pains, and complications of SH.

RESULT:

TABLE 1 - PRE OPERATIVE CLINICAL PRESENTATION:

S. No.	CLINICAL PRESENTATION	NUMBER	PERCENTAGE
1	Bleeding per rectum	157	78.6
2	Prolapsed pile mass	136	68
3	Anal Pain, Discharge and Itching	85	42.5
4	Constipation	60	30

TABLE 2 : STAPLED HAEMORRHOIDECTOMY Vs OPEN HAEMORRHOIDECTOMY

S. No.	FEATURE (MEAN VALUE)	STAPLED HAEMORRHOIDECTOMY (OUR STUDY)	OPEN HAEMORRHOIDECTOMY (Baliga K et al Int Surg J 2016 Nov;3(4:1901-1905))
1	Operating Time (min)	30	35.5
2	Pain score (Visual Analogue Scale 0 - 100)	30	57.03
3	Post Operative bleeding (Percentage)	2	6.70
4	Post Operative Urinary Retention (%)	11	16.7
5	Return to Normal Activity (Days)	5	7.77

TABLE 3. POST OPERATIVE COMPARISON WITH OTHER STUDIES ON STAPLER HAEMORRHOIDECTOMY

S. No.	COMPLICATION	PERCENTAGE (OUR STUDY)	AZIZI R (Shiraz E Medi Journal, Vol. 10, No.1, Jan 2009)
1	NO COMPLICATION	85	69.4
2	BLEEDING PER RECTUM	2	6.1
3	URINARY RETENTION (%)	11	28.5
5	PERIANAL PAIN	3	4
6	DIFFICULTY IN DEFEACATION	4	2
7	INCOTINENCE	1	2

The study group comprised 76% men and 24% women in the mean age range of 40 years (30 - 70+years). The patients graded III and IV on proctoscopy were subjected to this stapled treatment.

The mean operative time was 30 min. 1 (0.5%) patient had bleeding from staple line which was managed by haemostatic suturing while in 3 (1.5%) patients it was controlled by packing. Post operatively 96% patient went home after overnight stay and only 4% had 48 hrs or more hospital stay.

Post operative analgesia during first 24 hrs consisted of single dose IV diclofenac (75 mg/ 3 ml) in all patients who underwent stapled procedure. 186 (93%) patients require only single analgesic while 14 (7%) patient needed 2 analgesic IV diclofenac and tramadol in first 24 hour. After 24 hrs all patient were shifted to oral analgesic (Diclofenac + Paracetamol) on SOS basis As shown in table no 2 stapler haemorrhoidectomy takes less operative times, post op bleed, post op urinary retention and patient return to normal activity earlier as compared to open haemorrhoidectomy Follow up was carried out at 1 week, 3 week then 6 monthly. Majority of our patients were satisfied and had no complaints about the surgery and its results.

DISCUSSION:

Stapled haemorrhoidectomy is a simple, safe and effective alternative method for the treatment of symptomatic

haemorrhoids with a relatively painless post operative period as it excises a circumferential portion of the lower rectal and upper anal canal mucosa and sub mucosa and performs a re-anastomosis with a circular stapling device. The strongest argument in favor of this operation is that it leaves the richly innervated anal canal tissue and perianal skin intact, thus reducing the pain usually associated with open method. Its indication includes grade III and uncomplicated grade IV haemorrhoids. In the Procedure for Prolapse and Haemorrhoids (PPH) Multicentre Study Group trial it was demonstrated that stapled haemorrhoidectomy offers the benefits of less post operative pain, less analgesics requirements, and less pain at bowel movement (11). We have noted similar results in our series and no recurrence of symptoms on follow up. Similarly other studies presented that SH results in significantly lesser immediate postoperative pain than conventional excision techniques and offers more comfort to the patient. (12,13,14)

In our study majority of patients (98%) were discharged home on Post Operative Day 1. Various multicentre studies have shown that 96.3% of patients were discharged home on POD1(15). Majority of patients in our series (70.5%) returned to their normal activities within one week which is comparable to other studies (15,16,17). Operating time (mean 30-min) and perioperative problems were comparable to other studies (16,17,18). post operatively 22-11% patient develop urinary retention that was managed with indwelling Foleys catheterization. In majority of patients (95%) oral paracetamol and diclofenac sodium were enough to achieve pain control and analgesia was not required beyond 5 days.

Several randomized trials comparing stapled haemorrhoidectomy with traditional haemorrhoidectomy were developed to know the efficacy and safety of the technique (19,20,7,15)

None of the patient in our study developed mucosal septum, partial dehiscence, intussusceptions, intramural abscess as reported by some studies. (21)

CONCLUSION:

Stapled haemorrhoidectomy is safe, effective with less postoperative complication in comparison with traditional surgical haemorrhoidectomy. Early return to daily routine activity and early recovery are among the advantages of this technique. Stapled haemorrhoidectomy can be performed as a day care procedure

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