

## Original article

### Management of 3<sup>rd</sup> Degree Hemorrhoids with Stapled Haemorrhoidectomy vs. Open Haemorrhoidectomy: A prospective randomized study.

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**ABSTRACT: Introduction:** Many surgical and non-surgical treatment modalities are available for management of hemorrhoids of which Haemorrhoidectomy is regarded as the gold standard of treatment. Conventional open Haemorrhoidectomy is widely performed & has stood the test of time. Stapled Haemorrhoidectomy is newer procedure in the management of haemorrhoids. Our study aims to compare the two surgical modalities in relation to the technique & time duration of surgery, post-operative stay & complications.

**Methods:** A prospective randomized study was conducted at AMC MET MMC & LG hospitals Ahmedabad between 1<sup>st</sup> January 2016 & 1<sup>st</sup> Sept 2016. All patients presenting with 3<sup>rd</sup> degree haemorrhoids were randomized between Open & Stapled Haemorrhoidectomy groups & compared with relation to mean operative timing, complications post operatively namely hemorrhage, urinary retention & post-operative pain, duration of hospital stay, duration for resuming normal work after discharge. All cases were thoroughly studied and followed up for period of 3 months. Data was assessed by multi-variation analysis by paired T test & Wilcoxon analysis.

**Results:** The mean operative time, postoperative pain, hemorrhage & incidence of urinary retention were found significantly less in stapled haemorrhoidectomy group compared to open surgery group. Mean duration of Hospital stay was 3 days and returned to their routine work in 10 days in stapled haemorrhoidectomy group which was 6 days & 17 days for open surgery group respectively.

**Conclusion:** Stapled haemorrhoidectomy is effective in terms of decreased /minimal pain, less requirement of analgesics and less pain at first bowel movement, less post-operative recovery time which indicate faster wound healing, & short postoperative hospital stay with early return to normal routine activity. However, long-term follow-up is necessary to determine whether these initial results are reproducible & both procedure need to be evaluated for many other variables such as cost effectiveness, intra operative blood loss & recurrence before coining stapled Haemorrhoidectomy as a standard procedure for management of 3<sup>rd</sup> degree haemorrhoids.

**KEYWORDS:** MIPH, Stapled haemorrhoidectomy, Haemorrhoidectomy.

**INTRODUCTION:** Haemorrhoids are one of the commonest ailments that afflict mankind. The term 'hemorrhoid' is derived from the Greek adjective Haimorrhoides: Haima (blood), Rhoos (flowing). It is difficult to obtain any accurate data of their incidence as many patients have symptomless haemorrhoids. It is a frequent finding that patient having haemorrhoids might not have any symptoms. It is likely that at least 50% of people over the age of 50 have some degree of haemorrhoids. Treatment of haemorrhoids is avoided by patients because they are afraid of the pain associated with Haemorrhoidectomy & alternatively modalities including non-allopathic treatment modalities are

sought for the same reason. Troublesome symptoms post Haemorrhoidectomy like bleeding, post-operative pain & urinary retention are also significant problems to deal with. For so many years now Open Haemorrhoidectomy has been the gold standard of treatment for 3<sup>rd</sup> & 4<sup>th</sup> degree haemorrhoids. Stapled Haemorrhoidectomy, a newer procedure has gained rapid popularity among surgical departments as a better alternative to conventional open technique. This study aims to compare both procedures in terms of intra & post-operative factors.

**AIMS & OBJECTIVES:** The aims and objectives of this study are to compare between circular-stapler haemorrhoidopexy (MIPH) and conventional Open Haemorrhoidectomy in terms of:

- Mean operative Time.

- Postoperative complications:

Postoperative pain, Postoperative bleeding, Urinary retention.

- Postoperative recovery:

Mean duration of hospital stay, Mean duration of Return to normal activity.

**MATERIALS & METHODOLOGY:** A prospective randomized study involving 30 patients of grade 3 haemorrhoids was undertaken at department of general surgery, AMC MET MMC & LG hospitals Ahmedabad between 1<sup>st</sup> January 2016 & 1<sup>st</sup> September 2016. The IRB & Ethical Committee at AMC MET reviewed & approved the study in accordance with the Helsinki declaration of 1964.

**Inclusion criteria:** patients admitted in dept of general surgery of LG hospital Ahmedabad with grade 3 haemorrhoids were included in this study. All patients underwent battery of pre-operative investigations including blood counts, liver & renal function testing, coagulation profile, sero-positivity markers, x ray chest & abdomen, ECG & 2D echo. Patients with ASA Grade 4 on PAC were excluded from this study.

15 patients underwent Open Haemorrhoidectomy by Ferguson's method & 15 patients underwent stapled Haemorrhoidectomy by Dr. Longo's method. Results were reviewed by multi variation analysis using Paired T Test & Wilcoxon Analytic test. Patients were followed up for mean duration of 3 months.

#### **OBSERVATIONS:**

**Age Distribution:** Patients included in the study were from age 27 to 64 years. Incidence of haemorrhoids increases with age with peak between 30 to 50 years of age. Around 20 (70%) patients belongs to this age group. 5 (15%) of patients were below 30 years and above 50 years. Young and middle age patients seek earlier treatment than elders. Presentation in elderly patients is also late.

**Sex Distribution:** There is a male preponderance in the groups with around 25 (80%) male and the rest 5(20%) being females.

**Mean Operative Time:** MOT in open surgery group was 45 minutes as compared to 38 minutes in Stapled surgery group. In case of MIPH, MOT of initial 12 cases was around 67 minutes which on experience reduced to 32 minutes in last 3 cases. The P-Value is 0.016393. The result is significant at  $p < 0.05$ .

**Complications:**

Complication	Open Group (15cases)		MIPH Group (15cases)	
	No	%	No	%
Pain				
Mild	3	20.0	13	86.7
Moderate	7	46.7	2	13.3
Severe	5	33.3	0	0
Bleeding				
Mild	1	6.6	13	86.6
Moderate	7	46.6	2	13.3
Severe	7	46.6	0	0
Urinary Retention	10	66.7	15	100
- Passed easily				
- Requiring hot Water bag and analgesics	3	20.0	0	0
-Requiring Catheterization	2	13.3	0	0

**Duration of Hospital Stay:**

Days	Open Group (15 cases)		MIPH Group (15 cases)	
	No.	%	No.	%
1 – 3	3	20	15	100
4 – 6	10	66.7	0	0
>6	2	13.3	0	0

**Duration of resumption of daily work:**

Days	Open Group		MIPH Group	
	No	%	No	%
1- 10	0	0	14	93.3
11 –20	8	53.3	1	6.7
>20	7	46.7	0	0

**CONCLUSIONS:**

- Out of the two techniques, open Haemorrhoidectomy is universally available, simple to learn, economical procedure with few complications and associated with longer wound care and long duration of morbidity.
- Stapled Haemorrhoidectomy has less intra-operative and post-operative complications. Patients undergone MIPH had less blood loss with less post-operative pain and morbidity.
- Stapled Haemorrhoidectomy is associated with shorter postoperative hospital stay and quicker return to routine work. MIPH has greater patient satisfaction & better functional outcome & quality of life.

- Though Stapled Haemorrhoidectomy is touted as costly, early resumption of work may help reduce the economic burden on healthcare.
- Stapled Haemorrhoidectomy has a longer learning period but duration of surgery can be significantly shortened with experience.

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