

## ORIGINAL ARTICLE

## Conventional vs stapled haemorrhoidectomy- A comparative study

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**Background:** Hemorrhoidal disease is one of the most common anorectal disorders, affecting more than 15 million people annually. The present study compared the conventional vs stapled haemorrhoidectomy. **Materials & Methods:** 48 patients of grade II or grade III hemorrhoids were divided into 2 groups. Group I (24) patients were managed with surgical ligation and excision of haemorrhoids i.e. by the Milligan-Morgan technique and group II (23) with stapled haemorrhoidectomy (Longo's technique). **Results:** Acute retention of urine was seen in 6 in group I and 3 in group II. Hospital stay was 4.5 days in group I and 2.6 days in group II and analgesics required during hospitalization as 12.5 days in group I and 4.2 days in group II. The mean analgesics requirement was 18.4 in group I and 10.2 in group II, post operative complications were secondary hemorrhage seen in 3 in group I and reaction hemorrhage seen in 2 in group I and 1 in group II and fecal incontinence seen 1 in group I. **Conclusion:** Stapled haemorrhoidectomy is superior technique than the conventional haemorrhoidectomy in patients with hemorrhoids.

**Key words:** analgesics requirement, anorectal disorders, conventional haemorrhoidectomy

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**INTRODUCTION**

Hemorrhoidal disease is one of the most common anorectal disorders, affecting more than 15 million people annually in the United States.<sup>1</sup> This number is thought to underestimate the prevalence of the disease because one-third of patients with complaints consistent with hemorrhoids never present to a physician.<sup>2</sup> The prevalence of hemorrhoids is equal between men and women, but men are more likely to seek treatment; moreover, the prevalence of hemorrhoids also increases with age until the seventh decade, at which point there appears to be a slight decline. Internal hemorrhoids exist due to the chronic engorgement of the submucosal venous plexus of the anal canal and originate above the dentate line.<sup>3</sup>

The best possible treatment of third and fourth degree haemorrhoids is haemorrhoidectomy. Milligan Morgan's Haemorrhoidectomy (MMH) is the most commonly used and is widely considered to be the most effective surgical technique for treating haemorrhoids.<sup>4</sup> Other techniques, such as Ferguson's closed haemorrhoidectomy and Parks sub-mucosal haemorrhoidectomy are still followed at many places.<sup>4</sup> In this Stapled haemorrhoidectomy (PPH), was introduced in the 1990s by Dott Antonio Longo in Italy. In this procedure, a device is introduced into the

anal canal which leads to the excision of a ring of mucosa proximal to the haemorrhoids, thus, interrupting the blood supply.<sup>5</sup> The present study compared the conventional vs stapled haemorrhoidectomy.

**MATERIALS & METHODS**

This study was conducted among 48 patients of grade II or grade III hemorrhoids of both gender. All were informed regarding the study and their written informed consent was obtained.

Demographic data was recorded. A thorough examination was performed with digital rectal examination and proctoscopy. Patients were divided into 2 groups. Group I (24) patients were managed with surgical ligation and excision of haemorrhoids i.e. by the Milligan-Morgan technique and group II (23) with stapled haemorrhoidectomy (Longo's technique).

The degree of pain was determined with VAS pain scale, number of analgesics consumed, any urinary retention and post-operative complication were recorded. Results thus obtained were subjected to statistical analysis; P value less than 0.05 was considered significant.

**RESULTS****Table I Comparison of parameters**

Parameters	Group I	Group II	P value
Acute retention of urine	6	3	0.01
Hospital stay (Days)	4.5	2.6	0.02
Analgesics required during hospitalization	12.5	4.2	0.01

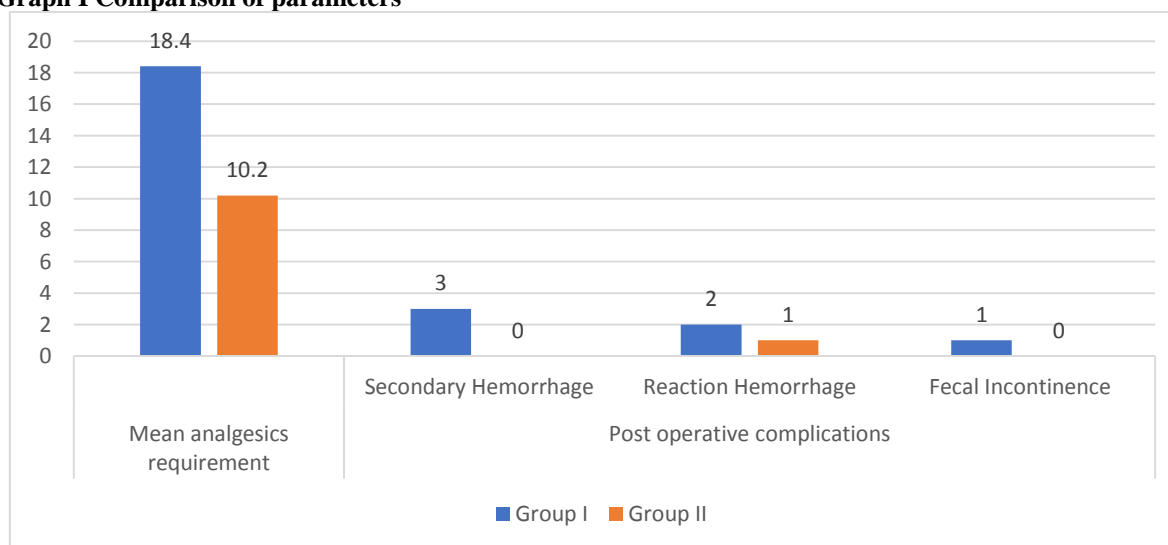
Table I shows that acute retention of urine was seen in 6 in group I and 3 in group II. Hospital stay was 4.5 days in group I and 2.6 days in group II and analgesics required during hospitalization was 12.5 days in group I and 4.2 days in group II. The difference was significant ( $P < 0.05$ ).

**Table II Comparison of parameters**

Parameters	Variables	Group I	Group II	P value
Mean analgesics requirement		18.4	10.2	0.04
Post operative complications	Secondary Hemorrhage	3	0	0.01
	Reaction Hemorrhage	2	1	0.05
	Fecal Incontinence	1	0	0.04

Table II, Graph I shows that mean analgesics requirement was 18.4 in group I and 10.2 in group II, post operative complications were secondary hemorrhage seen in 3 in group I and reaction hemorrhage seen in 2 in group I and 1 in group II and fecal incontinence seen 1 in group I. The difference was significant ( $P < 0.05$ ).

**Graph I Comparison of parameters**



## DISCUSSION

Conventional surgical hemorrhoidectomy (CH) involves excision of the hemorrhoidal cushions and is generally advocated for 3rd and 4th degree hemorrhoids.<sup>6</sup> This traditional approach is effective, however it is often accompanied by a high incidence of complications like urinary retention, hemorrhage, and significant pain.<sup>7</sup> Circular stapled hemorrhoidopexy (SH) was first described by Longo in 1998 as alternative to conventional excisional hemorrhoidectomy. In contrast to the traditional approach, it does not remove the hemorrhoidal tissue. Alternatively, it fashions a mucosa to mucosa anastomosis by excising the submucosa proximal to the dentate line.<sup>8</sup> This study was done to compare the postoperative recovery and complications of PPH and conventional MMH.

We found that acute retention of urine was seen in 6 in group I and 3 in group II. Hospital stay was 4.5 days in group I and 2.6 days in group II and analgesics required during hospitalization was 12.5 days in group I and 4.2 days in group II. Jayaraman et al<sup>9</sup> compared the use of circular stapling devices and conventional excisional techniques in patients with symptomatic hemorrhoids. Patients undergoing

circular stapled hemorrhoidopexy (SH) were significantly more likely to have recurrent hemorrhoids in long term follow up at all time points than those receiving conventional hemorrhoidectomy (CH). There were 23 recurrences out of 269 patients in the stapled group versus only 4 out of 268 patients in the conventional group. Similarly, in trials where there was follow up of one year or more, SH was associated with a greater proportion of patients with hemorrhoid recurrence. Furthermore, a significantly higher proportion of patients with SH complained of the symptom of prolapse at all time points. In studies with follow up of greater than one year, the same significant outcome was found. Non-significant trends in favor of SH were seen in pain, pruritus ani, and fecal urgency. All other clinical parameters showed trends favoring CH.

We found that mean analgesics requirement was 18.4 in group I and 10.2 in group II, post operative complications were secondary hemorrhage seen in 3 in group I and reaction hemorrhage seen in 2 in group I and 1 in group II and fecal incontinence seen 1 in group I.

Ortiz et al<sup>10</sup> included 241 patients who underwent surgery with traditional open or closed technique and

207 with the SH technique according to Longo. There were no differences between CH and SH about both pre and post surgery hospitalization and intraoperative length. Pain is the most frequently observed early complication with a statistically significant difference in favour of SH. Good results in CH group using anoderma sparing and perianal anaesthetic infiltration at the end of the surgery was found. In all cases, pain relief was obtained only with standard analgesic drugs (NSAIDs). No chronic pain cases were observed in both groups. Only in SH group we report also 5 cases of thrombosis of external haemorrhoids and 7 perianal hematoma both solved with medical therapy. There were no statistical significant differences between two groups about fever, incontinence to flatus, urinary retention, fecal incontinence, substenosis and anal burning.

Simone Manfredelli et al confirms the validity of both CH and SH. Failure may be related to wrong surgical indication or technical execution. Certainly CH procedure is more invasive and slightly more painful in immediate postoperative period than SH surgery, which is slightly more expensive and has more complications. In their opinion the high risk of possible early and immediate complications after surgery requires at least a 24 hours hospitalization length. SH is the gold standard for III grade haemorrhoids with mucous prolapse while CH is suggested in IV grade cases.<sup>12</sup>

## CONCLUSION

Authors found that stapled haemorrhoidectomy is superior technique than the conventional haemorrhoidectomy in patients with hemorrhoids.

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