

## ORIGINAL RESEARCH

### A comparative study of stapler hemorrhoidectomy and open hemorrhoidectomy

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#### ABSTRACT

**Background:** There are different systems utilized in the careful treatment of hemorrhoidal ailment. The present study was conducted to compare stapler hemorrhoidectomy and open hemorrhoidectomy.

**Materials & Methods:** 70 hemorrhoids patients of both genders were divided into 2 groups. Group I was stapler hemorrhoidectomy group (SH) and group II was Open (Milligan Morgan) hemorrhoidectomy group (OH). Operating time (mins), first bowel movement (hours), return to normal daily activities (days), pain and complications.

**Results:** Group I comprised of 25 males and 10 females and group II had 18 males and 17 females. Operating time (mins) was 24.3 in group I and 18.1 in group II, first bowel movement (hours) was 19.2 in group I and 34.6 in group II, return to normal daily activities (days) was 5.7 in group I and 7.2 in group II and VAS was 26.2 in group I and 50.8 in group II. Complications was bleeding seen in 1 in group I and 2 in group II, urinary retention 4 in group I and 5 in group II and bleeding and urinary retention 2 in group I and 1 in group II. The difference was significant ( $P < 0.05$ ).

**Conclusion:** Operative time, duration of hospital stay and return to normal activity were satisfactory with stapler hemorrhoidectomy than the open method.

**Key words:** stapler hemorrhoidectomy, open method, Milligan Morgan

#### INTRODUCTION

Hemorrhoidal illness is an extremely regular anorectal issue, happening in around 5% of everybody, and more often in people who are more established than 40 years.<sup>1</sup> Careful treatment is required in cases having symptomatic Grade III and Grade IV hemorrhoids. Also, medical procedure might be required when clinical treatment comes up short or within the sight of accompanying conditions, for example, butt-centric crevices or ulcers.<sup>2</sup> There are different systems utilized in the careful treatment of hemorrhoidal ailment. Ordinary strategies incorporate Fergusons shut hemorrhoidectomy and Milligan–Morgans open hemorrhoidectomy, which can be performed with surgical blade or electrocautery. Also, an assortment of gadgets and techniques have been acquainted with assistance encourage the system and limit persistent inconvenience in the postoperative period.<sup>3</sup>

Modern surgical practice has learnt from experience that surgery as an option is not viable and better avoided in 1st and 2nd degree hemorrhoids.<sup>4</sup> The Milligan Morgan hemorrhoidectomy is the most widely practiced surgical technique for the management of 3rd and 4th degree hemorrhoids and is considered the current gold standard and has stood the test

of time by virtue of its least postoperative complications, cost effectiveness and better long-term effects.<sup>5</sup> Staplers as a mechanical adjunct to surgery replacing the traditional sutures have revolutionized operative procedures over the last decade worldwide due to its simplicity, ease and standardization to an anastomosis.<sup>6</sup> The present study was conducted to compare stapler hemorrhoidectomy and open hemorrhoidectomy.

## MATERIALS & METHODS

The present study comprised of 70 hemorrhoids patients of both genders. All were informed regarding the study and their written consent was obtained.

Data such as name, age, gender etc. was recorded. Patients were divided into 2 groups. Group I was stapler hemorrhoidectomy group (SH) and group II was Open (Milligan Morgan) hemorrhoidectomy group (OH). Operating time (mins), first bowel movement (hours), return to normal daily activities (days), pain and complications. Data thus obtained were subjected to statistical analysis. P value < 0.05 was considered significant.

## RESULTS

**Table I Distribution of patients**

Groups	Group I	Group II
Status	Stapler hemorrhoidectomy	Open (Milligan Morgan) hemorrhoidectomy
M:F	25:10	18:17

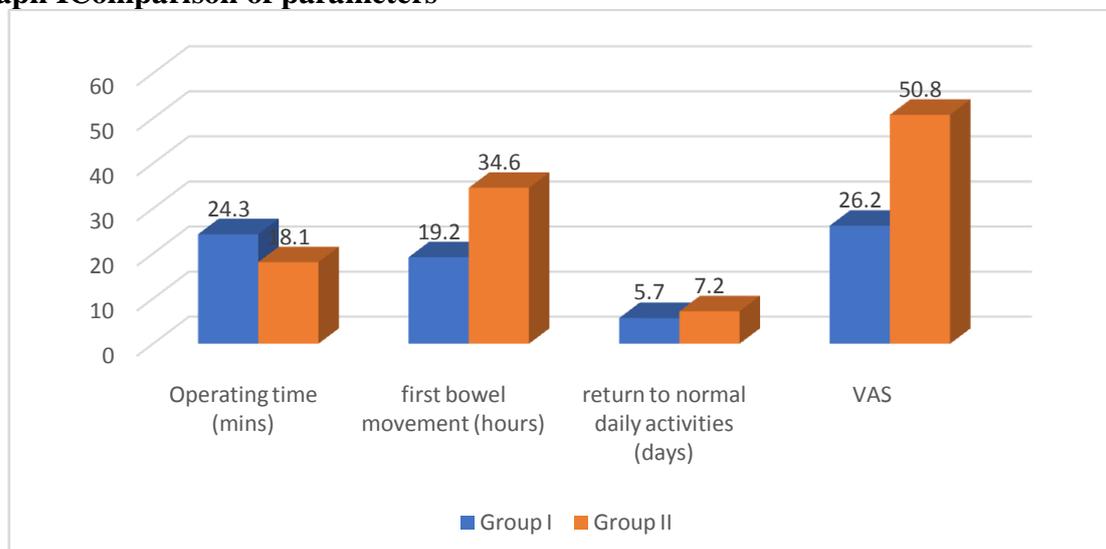
Table I shows that group I comprised of 25 males and 10 females and group II had 18 males and 17 females.

**Table II Comparison of parameters**

Parameters	Group I	Group II	P value
Operating time (mins)	24.3	18.1	0.04
first bowel movement (hours)	19.2	34.6	0.01
return to normal daily activities (days)	5.7	7.2	0.03
VAS	26.2	50.8	0.02

Table II, graph I shows that operating time (mins) was 24.3 in group I and 18.1 in group II, first bowel movement (hours) was 19.2 in group I and 34.6 in group II, return to normal daily activities (days) was 5.7 in group I and 7.2 in group II and VAS was 26.2 in group I and 50.8 in group II. The difference was significant (P< 0.05).

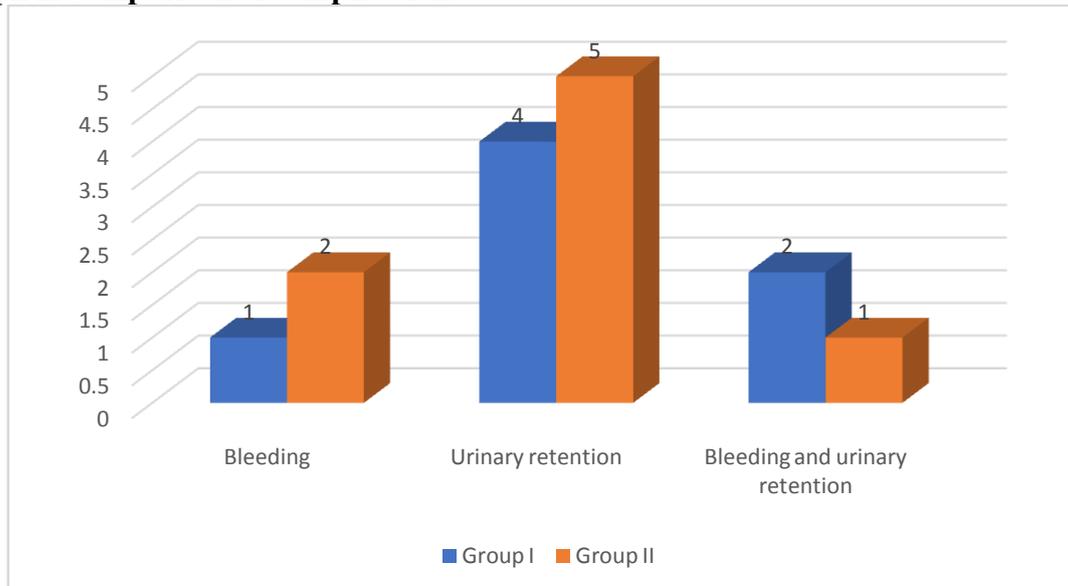
**Graph I Comparison of parameters**



**Table III Comparison of complications**

Complications	Group I	Group II	P value
Bleeding	1	2	0.09
Urinary retention	4	5	
Bleeding and urinary retention	2	1	

Table III, graph II shows that complications was bleeding seen in 1 in group I and 2 in group II, urinary retention 4 in group I and 5 in group II and bleeding and urinary retention 2 in group I and 1 in group II. The difference was significant ( $P < 0.05$ ).

**Graph II Comparison of complications**

## DISCUSSION

Stapled hemorrhoidopexy is a technique where buttcentric pads are not evacuated rather a ring of mucosa in the terminal piece of the rectum is extracted bringing about lifting back of hemorrhoidal pads into their anatomical positions.<sup>7,8</sup> The ultimate result will be diminished tightening of the hemorrhoids by the sphincter system during poo and decrease in blood stream into the pads.<sup>9,10</sup> Stapled hemorrhoidopexy, by extracting mucosal ring over the dentate line and fixing the inward rectal prolapse, should accomplish not just less post-usable torment, better practical recuperation with faster come back to ordinary exercises and improved patient fulfillment when contrasted with customary hemorrhoidectomy.<sup>11</sup> The present study was conducted to compare stapler hemorrhoidectomy and open hemorrhoidectomy.

In present study, group I comprised of 25 males and 10 females and group II had 18 males and 17 females. Khan et al<sup>12</sup> examined the outcomes of stapled hemorrhoidopexy and compare with conventional open hemorrhoidectomy in patients presented with grade III and IV hemorrhoids. Total 244 patients of both genders with ages 20 to 65 years presented with grade III and IV hemorrhoidal disease. All the patients were equally divided into two groups. Group I consist of 122 patients and received conventional hemorrhoidectomy, group II with same number of patients received stapled hemorrhoidopexy. Outcomes such as bleeding, postoperative pain by (VAS), hospital stay, return to normal activities and recurrence. Primary outcome was recurrence of hemorrhoids and examined at 6, 12 and 18 months postoperatively. Shorter hospital stay, less bleeding and less post-operative pain and shorter duration of surgery is associated with stapled hemorrhoidopexy.

We found that operating time (mins) was 24.3 in group I and 18.1 in group II, first bowel movement (hours) was 19.2 in group I and 34.6 in group II, return to normal daily activities (days) was 5.7 in group I and 7.2 in group II and VAS was 26.2 in group I and 50.8 in group II. Gravie et al<sup>13</sup> included 134 patients. The mean follow-up period was 2.21 years (1.89 – 3.07). Nine patients (7%) could not be monitored at 1 or 2 years, but 4 of these 9 nevertheless filled in the 1-year questionnaire. The patients in the SH group experienced less postoperative pain/discomfort as scored by pain during bowel movement, total analgesic requirement over the first 3 days, and per-patient consumption frequency of class III analgesics. A clear difference in morphine requirement became evident after 24 hours. Hospital stay was significantly shorter in the SH group. At 1 year, no differences in the resolution of symptoms were observed between the 2 groups, and over 2 years, the overall incidence of complications was the same, specifically fecaloma in the MM group and external hemorrhoidal thrombosis in the SH group. Impaired sphincter function was observed at 1 year with no significant difference between the groups for urgency (12%), continence problems (10%), or tenesmus (3%). No patient needed a second procedure for recurrence within 2 years, although partial residual prolapse was detected in 4 SH patients (7.5%) versus 1 MM patient (1.8%).

We observed that complications was bleeding seen in 1 in group I and 2 in group II, urinary retention 4 in group I and 5 in group II and bleeding and urinary retention 2 in group I and 1 in group II. Baliga et al<sup>14</sup> included 60 consecutive patients. The patients were divided into two groups viz. Stapler hemorrhoidectomy group (SH) and Open (Milligan Morgan) hemorrhoidectomy group (OH). Randomization of the patient and assigning them to either of the group was done by the sealed envelope technique on the morning of the surgery. Pain score data sheet was filled out by the patients postoperatively. Sixty patients in two equal groups were studied. Mean age of the two groups was similar. The male: female ratio was 6.5:1 for the stapled group and 9:1 for the open group. The mean operating time for open group was significantly higher than the stapled group ( $P = 0.0001$ ). The SH group returned to normal activity significantly early. There was no significant difference in pain score on day one. Pain score was significantly lower for the SH group on days 2 and 3. There was no significant difference in complication between the two groups.

## CONCLUSION

Authors found that operative time, duration of hospital stay and return to normal activity were satisfactory with stapler hemorrhoidectomy than the open method.

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