

Comparative study of open haemorrhoidectomy and stapler haemorrhoidopexy in a rural tertiary center

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Abstract

Background: Hemorrhoids are one of the most common benign anorectal problem worldwide. The gold standard surgery for hemorrhoids consists of excision of the main hemorrhoidal cushions. But they have their drawback. postoperative pain and protracted wound healing, leading to a significant, although highly variable, postoperative discomfort and prolonged sick leave. Ever since Longo introduced stapler hemorrhoidopexy in 1998 it has become a revolution. The aim of this study is to compare stapler hemorrhoidopexy with the gold standard and study its benefits. **Methods:** In this study 64 patients were randomised into two groups of 32 each after taking an informed consent to participate in the study. The groups were compared for operating time, postoperative urinary retention, duration of hospital stay and return. The patients were followed up for a period of three months and patient satisfaction assessed after that. Only patients with second, third and fourth degree hemorrhoids were included and patients with any other ano rectal pathology were excluded. **Results:** Males dominated the study group with 45(70%). Most common age group was 41-60. Stapler hemorrhoidopexy had less operating time, less post-operative pain, less urinary retention, early discharge from hospital and return to work that open hemorrhoidectomy group. The patient satisfaction after three months was also more. **Conclusions:** Stapled hemorrhoidopexy does have a significant advantage over open Milligan Morgan hemorrhoidectomy because of reduced procedure time, reduced postoperative pain, early discharge from hospital and an early return to work but in a country like India where majority of the population is not economically sound the cost of stapler hemorrhoidopexy would be prohibitive to many. Taking into consideration the economic burden it is difficult to recommend stapler hemorrhoidopexy in all patients in a developing country like India

Key Word: open hemorrhoidectomy, Milligan Morgan, Stapler, Stapler hemorrhoidopexy,

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INTRODUCTION

Hemorrhoids are one of the most common benign anorectal problem worldwide. Almost 40% of population suffer from hemorrhoids at some time of their lives. It is

impossible to give an accurate figure for their prevalence. Hemorrhoids have plagued humans since they attained the erect posture. The gold standard surgery for hemorrhoids consists of excision of the main hemorrhoidal cushions at 3, 7 and 11 O clock positions.¹ Several techniques are currently being used, usually named after their promoters e.g. Milligan-Morgan, Parks or Ferguson they have a well-known long-term efficacy. Major drawbacks, however, are postoperative pain and protracted wound healing, leading to a significant, although highly variable, postoperative discomfort and prolonged sick leave.² To overcome these drawbacks Longo introduced "procedure for prolapse and haemorrhoids" referred to as stapler hemorrhoidopexy.³ Stapler hemorrhoidopexy is associated with lesser post-operative pain and lesser hospital stay. The

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aim of this study is to compare stapler hemorrhoidopexy to the gold standard and study the benefits of the procedure.

METHODS

This study consisted of 64 patients, 32 patients in each group. The open hemorrhoid group was group A and the other group B. The patients were informed of the study and an informed consent was taken after explaining to them that they would be randomised and could have either Milligan Morgan open hemorrhoidectomy or a stapled hemorrhoidopexy. Routine pre-operative investigation and a pre-operative anaesthetic check-up were done on outpatient basis. All patients underwent a colonoscopy before being admitted. The patients were admitted one day prior to the day of surgery. Randomisation of patients and procedure was done by the sealed envelope technique. In the postoperative period visual analogue scale was used for post-operative pain assessment at 6,12 and 24 hours. Factors like operating time, postoperative urinary retention, duration of hospital stay and return to work were observed. The patients were followed up for a period of three months and patient satisfaction assessed.

Inclusion criteria:

- Patients more than 18 years of age
- Patients with second, third and fourth degree Hemorrhoids

Exclusion criteria

- First degree Hemorrhoids
- Thrombosed Hemorrhoids
- Patients with previous rectal surgery
- Patients with other ano rectal pathology
- Patients not willing to give consent.

Materials Required

- Endoscopy stapler (Circular)
- Purse-string suture (Polypropylene)
- Proctoscope
- Circular anal dilator
- Purse-string suture threader

RESULTS

In this study 41-60 years was the commonest age group 16(50%) in group A and 14(43.8%) in group B. Males were the predominant group in group A 21(65.6) and group B 24(75%). Third degree Hemorrhoids was the commonest in both groups, Group A 19(59.4%) and Group B 15(46.9%). The mean procedure time in group A was 60±5.8 minutes and in group B 35.30±5.07 minutes. In group A 13(40.6%) experienced moderate to severe pain whereas in group B none had moderate to severe pain. Urinary retention was observed postoperatively in 12(37.5%) in group A and 5(15.6%) in group B. Bleeding was not observed in any patient in both the groups.2(6.3%)

of the patients in group A were discharged from hospital within five days compared to 32(100%) in group B. The average number of days that patients needed to return to work in group A 16±4.9 and in group B was 5.2±1.7 days. At the end of three months 25(78%) patients were satisfied in group A whereas 30(93.75%) in group B.

Table 1: Distribution of age based on procedure.

Age	Group A		Group B	
	Count	Percent	Count	Percent
<20	0	0.0	1	3.1
21 - 40	10	31.3	6	18.8
41 - 60	16	50.0	14	43.8
>60	6	18.8	11	34.4

Table 2: Distribution of grade.

Grade	Group A		Group B	
	Count	Percent	Count	Percent
II	10	31.3	13	40.6
III	19	59.4	15	46.9
IV	3	9.4	4	12.5

Table 3: Procedure time

Procedure time	Group A		Group B	
	Count	Percent	Count	Percent
<30 Minutes	0	0.0	24	75.0
30 - 60 Minutes	13	40.6	8	25.0
>60 Minutes	19	59.4	0	0.0

Table 4: Comparison of post-operative pain based on group

Post-operative pain	Group A		Group B	
	Count	Percent	Count	Percent
Mild	19	59.4	32	100.0
Moderate/ Severe	13	40.6	0	0.0

Table 5: Comparison of return to work

Return back to work	Group A		Group B	
	Count	Percent	Count	Percent
<7 days	2	6.3	26	81.3
8 - 14 days	4	12.5	6	18.8
>14 days	26	81.3	0	0.0

DISCUSSION

In this study 45(70%) were males as compared to 55% in a study by Asif Ali *et al.*⁴ Patients of age more than 40 were most commonly involved in this study compared to less than 40 years of age in a study by Khan *et al.*⁵ The mean procedure time in both groups was more than that of that reported by Balinga K *et al.*⁶ In the postoperative period 13(40.6%) of patients in the open hemorrhoidectomy group had moderate to severe pain score which is comparable to a study by Singh SP *et al.*⁷ Urinary retention postoperatively is a very common complication. Bleeding after procedure is not rare but was not encountered in our

study. The mean hospital stay of patients with stapled hemorrhoidopexy group was shorter than the other group similar to findings a study by Filipovic.⁸ The average number of days the patients needed to go to work was less in group B compared to group A which is similar to findings of Nisar PJ *et al* and Pescatori M.^{9,10} Patient satisfaction after three months after they had returned to their daily lives was slightly more in group B which was comparable with other studies.⁹

CONCLUSION

From our study we conclude that stapled hemorrhoidopexy does have a significant advantage over open Milligan Morgan hemorrhoidectomy because of reduced procedure time, reduced postoperative pain, early discharge from hospital and an early return to work. In a country like India where majority of the population is not economically sound the cost of stapler hemorrhoidopexy would be prohibitive to many. But considering the longer hospital stay and delayed return to work which have a financial burden on the patient the total costs involved are more comparable. The satisfaction rates at three months was also comparable. It is difficult to recommend stapler hemorrhoidopexy in all patients in a developing country like India where the government spends very little on health care compared to the developed world. If an Indian company could come up with a low cost stapling device it would be ideal.

REFERENCES

1. Jayaraman S, Colquhoun PHD, Malthaner RA. Stapled versus conventional surgery for hemorrhoids. *Cochrane database Syst Rev.* 2006 Oct;(4):CD005393.
2. Lu M, Shi G-Y, Wang G-Q, Wu Y, Liu Y, Wen H. Milligan-Morgan hemorrhoidectomy with anal cushion suspension and partial internal sphincter resection for circumferential mixed hemorrhoids. *World J Gastroenterol.* 2013 Aug;19(30):5011-5.
3. Porrett LJ, Porrett JK, Ho Y-H. Documented complications of staple hemorrhoidopexy: a systematic review. *Int Surg [Internet].* 2015 Jan;100(1):44-57. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/25594639>
4. Ali SA, Shoeb MFR. Study of risk factors and clinical features of hemorrhoids. *Int Surg J.* 2017;4(6):1936-9.
5. Khan R, Itrat M, Ansari AH, Zulkifile M. A study on associated risk factors for haemorrhoids. *J Biol Sci Opin.* 2015;3(1):36-8.
6. Baliga K, Chetty DV. Stapler hemorrhoidectomy versus open hemorrhoidectomy. *Int Surg J.* 2016;3(4):1901-5.
7. Singh SP, Singh SP, Gupta V, Quadri K, Gupta M. Comparison between stapler hemorrhoidectomy and open hemorrhoidectomy in the management of grade III and IV hemorrhoids: a prospective randomized study. *Int Surg J.* 2018;5(6):2069-73.
8. Filipović V, Shalaby R, Desoky A. Randomized clinical trial of stapled versus Milligan-Morgan haemorrhoidectomy. *Br J Surg* 2001; 88: 1049 (53. *Vojnosanit Pregl.* 2002;59(4):442.
9. Nisar PJ, Acheson AG, Neal KR, Scholefield JH. Stapled hemorrhoidopexy compared with conventional hemorrhoidectomy: systematic review of randomized, controlled trials. *Dis colon rectum.* 2004;47(11):1837-45.
10. Pescatori M, Favetta U, Dedola S, Orsini S. Transanal stapled excision of rectal mucosal prolapse. *Tech Coloproctol.* 1997;1:96-8.

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