



A prospective randomized controlled trial to compare the clinical outcomes of triple rows stapler versus double rows stapler in hemorrhoids

*Corresponding Author: **Nowraj Alam Choudhury**

Email: choudhurnowraj@gmail.com

Abstract

Background: Hemorrhoidal disease is ranked first amongst diseases of the rectum and large intestine, of which more than 4% are symptomatic. Surgical management of hemorrhoids has progressed tremendously from complex ligation procedures and Conventional Hemorrhoidectomy (CH) in the past to simpler techniques today that allow the patient to return to normal activities in a short period. Use of Circular Stapler in Hemorrhoids results in improved safety and efficacy as compared to those of conventional methods.

Aim: To compare the clinical outcomes of triple rows stapler versus double rows stapler in Hemorrhoids.

Material and methods: This Prospective randomized controlled trial was carried out from April 2021 to October 2022. Non-probability convenient sampling was used, and the minimum sample size was calculated to be 100.

Male and Female patients who are in between 18-90 years of age and Patients with Grade-2 and Grade-3 hemorrhoids are included in this study.

Any pregnant female patient or with suspected pregnancy at the time of screening, any patients with active infections or with a history of infections requiring antibiotics at the intended operative site within 30 days prior to the planned surgery date, any patients who have taken anti-coagulant or anti-platelet therapy within 7 days prior to the planned date of surgery and any patient unfit for surgery are excluded from the surgery. Patients who fulfilled the above inclusion criteria and gave consent for their enrolment were enrolled in the study. Patients were blindly allocated into the groups (Group-1 and Group-2). In Group-1, Two rows Stapler Hemorrhoidopexy (SH) and in Group-2, Triple rows Stapler Hemorrhoidopexy (SH) was performed using a Circular Hemorrhoid Stapling Device. A p value <0.05 was considered statistically significant.

Results: Duration of hospital stay was considerably higher for patients in 2 rows group as compared to patients in 3 rows group (p value -0.027). Significantly higher proportion of patients in 2 rows group had more blood loss during surgery. (p

Nowraj Alam Choudhury*

Department of MIS & General Surgery, Artemis Hospitals, Sector 51, Gurgaon, Haryana, India.

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value<0.001). Significantly higher proportion of patients in 2 rows group had requirement for application of hemostatic sutures (p value= 0.006). Significantly higher proportion of patients in 2 rows group had early post-op bleed. (p value= 0.006). Higher proportion of patients in 2 rows group had late post op bleed (Three patients on post op day 3 and one patient on post op day 4), while none of them in 3 rows group had late post op bleed (p value= 0.042). Higher proportion of patients in 2 rows group had higher VAS score on post op day 7 as compared to 3 rows group. Also, this difference was found to be statistically significant (pvalue=0.001). Higher proportion of patients in 2 rows group developed recurrence, as compared to patients in 3 rows group. (p value= 0.05).

Conclusion: In our comparative analysis, we found that both two rows stapler and three rows stapler are safe and effective procedures for haemorrhoids. However, significant difference was noted in the operative blood loss and outcome parameters like hospital stay, application of hemostatic suture and complications like early post-op bleeding, late post-op bleeding, pain (at 1st follow up) and late complication like recurrence.

Introduction

Haemorrhoids means blood flowing (Greek: Haema=blood and Rhoos=flowing). The latin word "pila" from which the word "pile" is derived, actually means a ball. Since ancient times haemorrhoids have been the most disturbing diseases. Haemorrhoids represent pathological changes in the anal cushions, a normal component of the anal canal involved in aiding evacuation of stool and fine-tuning of anal continence. These pathological changes include rupture of the supporting connective tissue within the cushions, resulting in enlargement of the vascular plexus [1,2].

It has been suggested that the ideal treatment of haemorrhoids should be minimally invasive, painless, safe and effective with minimal cost [3]. Grade III and IV haemorrhoidal disease (Goligher classification) responds more favourably to surgical treatment [4]. Traditional Open Haemorrhoidectomy (OH) is still the gold standard operation but it is associated with significant postoperative pain and a small risk of injury to the anal sphincter complex [5].

Recently, stapled haemorrhoidopexy has been advocated as an alternative technique that is better in all aspects. Besides the improvement in the cosmetic appearance, there is lesser hospital stay (90% of stapled and 55% of open haemorrhoidectomy having a stay of less than 24 hours [6-8]. There is also marked reduction in the pain after operation (95% less) [11] and as there is negligible bleeding in the postoperative period (6% of patients having post operative bleeding), so there is no need to pack the wound [9].

Stapled Hemorrhoidopexy (SH) has been introduced since 1998 [10]. A circular stapling device is used to excise a ring of redundant rectal mucosa proximal to hemorrhoids and resuspend the hemorrhoids back within the anal canal. Apart from lifting the prolapsing hemorrhoids, blood supply to hemorrhoidal tissue is also interrupted. A recent meta-analysis comparing surgical outcomes between SH and hemorrhoidectomy, which included 27 randomized, controlled trials with 2279 procedures, showed that SH was associated with less pain, earlier return of bowel function, shorter hospital stay, earlier return to normal

activities, and better wound healing, as well as higher degree of patient satisfaction.

The stapled haemorrhoidopexy procedure removes redundant mucosa but cannot remove the skin covered external components of grade IV prolapse. Surgeons must be prepared to do a hybrid operation that combines the stapled procedure with a diathermy excision of the external component. In patients with excessive mucosal prolapse, the capacity of the stapler device to excise the mucosa may be exceeded. It has been proposed to use two staplers in this situation which gives significantly better result [11]. Others have proposed lowering the staple line and even including anoderm in the excision with improved result [12], or applying additional traction sutures to segments with more prominent mucosal prolapse [13].

Though the advantages of stapled haemorrhoidopexy over conventional procedure was studied and reported by numerous researchers, the retrospective observational cohort study of initial outcomes after a double row and triple row stapler surgeries remain are studied in our institution. However, prospective randomised controlled trial of initial outcomes along with late outcomes like -Chronic pain, recurrence, stricture formation are not done earlier, for which follow up of patients was done for 6 months.

Material and methods

This is a Prospective randomised controlled trial carried out in the Department of General Surgery of Artemis Health Institute, Gurgugram, Haryana, during the period from April 2021 to October 2022. The hospital caters to population from Gurugram and neighbouring districts and the clientele comprises of patients from various different socio-economic background. Institute ethical committee clearance certificate was sought and obtained before the study was begun and written informed consent was obtained from all the study participants before including them in the study.

Inclusion criteria: 1) Male and female patients who are in between 18-90 years of age. 2) Patients with Grade-2 and Grade-3 hemorrhoids.

Exclusion criteria: 1) Any pregnant female patient or with suspected pregnancy at the time of screening. 2) Patients whose tissue have undergone multiple injections of sclerosing agents for haemorrhoids. 3) Patients with active infections or with a history of infections requiring antibiotics at the intended operative site within 30 days prior to the planned surgery date. 4) Patients who have taken anti-coagulant or anti-platelet therapy within 7 days prior to the planned date of surgery. 5) Patient unfit for surgery.

Computer based Randomized Control Trial was done. In our study, 100 patients were enrolled (50 patients in two groups) In group-1 two rows stapler device was used while in group-2 three rows stapler device was used after agreeing to participate and after obtaining a proper informed consent. Patients were randomly allocated to one or more interventions and were followed until a finite date or the occurrence of one or more outcomes of interest. Their decision was kept secret in an envelope and was not mentioned in the data collected for the purpose of the study. The data was analyzed at the end of data collection. The envelope was opened and the groups were encrypted for the purpose of analysis. Statistics and comparisons were made which were ultimately decrypted to draw the final results. Computer based randomization was done.

Patients were operated via Stapler Hemorrhoidopexy technique. Standard technique was used, anaesthesia (spinal or general anaesthesia) was administered to all patients prior to surgery. Patients were placed in extended lithotomy position. Digital and proctoscopic examination was done using lignocaine jelly. Analport was placed and was fixed using silk suture. Stapler gun was used as per surgeon's preference. A purse string suture was taken 3 cms above dentate line. Anvil of stapler gun was inserted beyond purse string suture and suture was tightened. Stapler was tightened up to the indicated mark on gun and fired. Stapler was opened and removed along with the haemorrhoidal "Doughnut". Doughnut was examined for completeness. Staple line was examined for hemostasis and any hemostatic sutures if required were taken.

Data collection was done as per the proforma, details regarding their demographics, clinical symptoms, examination findings and pre-operative investigations were noted down. Preoperative pain scoring was done using Visual Analog Scale (VAS). Intraoperative data was collected including the operative duration, blood loss, and any inadvertent events during the operation. Intra-op blood loss was measured by absorption capacity of gauze piece. Postoperative pain score (VAS) was noted at 12 hours, 18 hours and 24 hours of the operation. The patients were discharged the next day, before which the operative site was discharged and were advised to follow up at 1 week, during which pain score (VAS), any complaints/symptoms and examination findings were noted down. Monthly follow up was done for 6 months.

Results

A total of 100 patients underwent stapled haemorrhoidopexy between april 2021 to october 2022. In three rows stapler group there were 38 male and 12 female patients, mean age of patients was 25. In two rows stapler group there were 36 male and 14 female patients, mean age of patients was 25. Mean operating time for three row stapler group was 35.7 ± 7.2 mins and two rows stapler group were 36.1 ± 8 mins. Use of hemostatic sutures in three row stapler group was needed for 10 patients and in two rows stapler group for 23 patients.

Early post-op bleeding is higher in two rows stapled group (69.7%) compared to three rows stapled group (30.3%). Late post-op bleeding is also higher in two rows stapled group (Three patients on post op day 3 and one patient on post op day 4), while none of them in 3 rows group had late post op bleed.

Higher proportion of patients in 2 rows group had higher VAS score on post op day 7 as compared to 3 rows group. Also, this difference was found to be statistically significant (p value – 0.001).

Higher proportion of patients in 2 rows group developed recurrence, as compared to patients in 3 rows group (p value– 0.05). One patient in three rows group and six patients in two rows group had recurrence.

Duration of hospital stay was considerably higher for patients in 2 rows group as compared to patients in 3 rows group (p value -0.027).

The operative blood loss and application of hemostatic suture was more in the patients who were operated by two rows stapler as compared to the patients who were operated by three rows stapler. Patients in whom hemostatic sutures were applied, were kept in hospital for longer duration for observation to look for any reactionary haemorrhage.

However, no significant difference was noted between the two groups in post-op pain at 12, 18 and 24 hours. Also, no significant difference was noted in operation duration, and late complications like chronic pain and stricture formation.

The complications like early post-op bleeding, late post-op bleeding, and late complication like recurrence rate are higher in two rows stapler group compared to three rows stapler group.

The late post-op pain (at 1st follow up) was higher in two rows stapler group as compared to three rows stapler group. Pain was present mostly in those patients who needed application of hemostatic sutures.

Discussion

Currently, several therapeutic modalities are available for the treatment of haemorrhoids. It largely depends on the severity and location of the haemorrhoids. Low grade (grade 2) haemorrhoids are usually managed by non-invasive methods like Rubber Band Ligation (RBL). The RBL procedure can be performed in an outpatient setting (may require several sittings) but is considered safe and preferred by patients, and yields a success rate of 70- 97% [57]. Doppler technology to identify and ligate 3-6 hemorrhoidal vessels has shown to result in lower recurrence rates than RBL, yet its association to increased post-operative pain and it being an invasive procedure is not practiced widely. For grade 3 prolapsing haemorrhoids, excision has been considered standard of treatment. With the advent of stapler haemorrhoidal procedure, the ease of availability of stapler devices, the variety of options available and increasing expertise in the technique, the current era has seen the stapler procedure being performed at an increasing rate in the last decade. However, even the stapler procedure is not free from complications. Post-operative pain has always been a fear-factor in patients with haemorrhoids. Pain is the major concern, which makes patients reluctant to undergo surgical procedure.

Table 1: Statistical analysis of various parameters.

Parameter	Group 1 (Two rows)	Group 2 (Three rows)	P – Value *	Significance
Patients (n)	50	50		
Gender (male)	38	36	0.64	No
Female	12	14	0.64	No
Age (years)	25	25	1.0	No
Mean operative time (mins)	36.1±8	35.7±7.2	0.792	No
Haemostatic sutures	23	10	0.006	Yes
Early bleeding: Intra-op to 24 hours	23	10	0.006	Yes
Late bleeding: 1st post op-day to 7th post-op day	4	0	0.042	Yes
Post operative pain at 12, 18 and 24 hours and at first follow up at 1 week (VAS Score)	At 12 hours- Mean – 4.2 At 18 hours- Mean – 3.02 At 24 hours- Mean – 1.92 At 1 week-31 patients have pain	At 12 hours- Mean – 4.2 At 18 hours- Mean – 3.06 At 24 hours- Mean – 1.94 At 1 week- 13 patients have pain	0.711 0.789 0.925 0.001	No No No Yes
Operation duration (in mins)	36.1±8	35.7±7.2	0.792	No
Hospital stay 1. 24 hours and less 2. 25-48 hours	1. 44 patients 2. 6 patients	1. 50 patients 2. None	0.027	Yes
Late complications like-Chronic pain, recurrence, stricture formation (Follow up to 6 months)	Chronic pain – 1 patient. Recurrence- 6 patients. Stricture- 1 patient.	Chronic pain – 1 patient. Recurrence- 1 patient. Stricture- 2 patients.	1.0 0.05 1.0	No Yes No
Blood loss during surgery (ml)	10 ml- 6 patients 15 ml- 20 patients 20 ml- 24 patients	10 ml- 35 patients 15 ml- 11 patients 20 ml- 4 patients	< 0.001	Yes

In our comparative analysis, we found that both two rows stapler and three rows stapler are safe and effective procedures for haemorrhoids. However, significant difference was noted in the operative blood loss and outcome parameters like hospital stay, application of hemostatic suture and complications like early post-op bleeding, late post-op bleeding, pain (at 1st follow up) and late complication like recurrence.

The operative blood loss and application of hemostatic suture was lesser in the patients who are operated by three rows stapler compared to the patients who are operated by two rows stapler. Early post-op bleeding is higher in two rows stapled group (69.7%) compared to three rows stapled group (30.3%). Late post-op bleeding is also higher in two rows stapled group (Three patients on post op day 3 and one patient on post op day 4), while none of them in 3 rows group had late post op bleed. Higher proportion of patients in 2 rows group had higher VAS score on post op day 7 as compared to 3 rows group. Also, this difference was found to be statistically significant (p value – 0.001). Higher proportion of patients in 2 rows group developed recurrence, as compared to patients in 3 rows group (p value– 0.05).

Duration of hospital stay was considerably higher for patients in 2 rows group as compared to patients in 3 rows group (p value -0.027). The operative blood loss and application of hemostatic suture was more in the patients who were operated by two rows stapler as compared to the patients who were operated by three rows stapler. Patients in whom hemostatic sutures were applied, were kept in hospital for longer duration for observation to look for any reactionary haemorrhage.

However, no significant difference was noted between the two groups in post-op pain at 12, 18 and 24 hours. Also, no significant difference was noted in operation duration, and late complications like chronic pain and stricture formation.

The complications like early post-op bleeding, late post-op bleeding, pain (at 1st follow up) and late complication like recurrence rate are higher in two rows stapler group compared to three rows stapler group, however further future studies with larger sample sizes are needed to verify the results in the long-term periods.

The late post-op pain (at 1st follow up) was higher in two rows stapler group as compared to three rows stapler group. Pain was present mostly in those patients who needed application of hemostatic sutures. Probably due to involvement of deeper tissue or taking the hemostatic suture too close to dentate line. However, further future studies with larger sample sizes are needed to verify the results.

Conclusion

Three rows stapled hemorrhoidopexy surgery is better than two rows stapled hemorrhoidopexy surgery in terms of post-op bleeding, hospital stay, blood loss during surgery and recurrence rate. Three rows stapler is more effective than two rows stapler for patients with grade 2-3 hemorrhoids. However, further studies with larger sample sizes are required to elucidate and confirm these results in long term period.

Declarations

Ethical approval: The study was approved by the Institutional Ethics Committee.

References

1. Agbo SP. Surgical management of hemorrhoids. Journal of surgical technique and case report 2011;3(2):68-75.
2. Thomson WH. The nature of haemorrhoids. The British journal of surgery 1975;62(7):542-52.
3. Infantino A, Altomare DF, Bottini C, Bonanno M, Mancini S, Yalti T, et al. Prospective randomized multicentre study compar-

- ing stapler haemorrhoidopexy with Doppler-guided transanal haemorrhoid dearterialization for third-degree haemorrhoids. *Colorectal disease : the official journal of the Association of Coloproctology of Great Britain and Ireland* 2012;14(2):205-11.
4. Hardy A, Chan CL, Cohen CR. The surgical management of haemorrhoids--a review. *Digestive surgery* 2005;22(1-2):26-33.
 5. Jayaraman S, Colquhoun PH, Malthaner RA. Stapled versus conventional surgery for hemorrhoids. *The Cochrane database of systematic reviews* 2006(4):Cd005393.
 6. Law WL, Tung HM, Chu KW, Lee FC. Ambulatory stapled haemorrhoidectomy: a safe and feasible surgical technique. *Hong Kong medical journal = Xianggang yi xue za zhi* 2003;9(2):103-7.
 7. Uras C, Baca B, Boler DE. Circular stapled hemorrhoidopexy: experience of a single center with 445 cases. *World journal of surgery* 2008;32(8):1783-8.
 8. Jayne DG, Botterill I, Ambrose NS, Brennan TG, Guillou PJ, O'Riordain DS. Randomized clinical trial of Ligasure versus conventional diathermy for day-case haemorrhoidectomy. *The British journal of surgery* 2002;89(4):428-32.
 9. Burch J, Epstein D, Sari AB, Weatherly H, Jayne D, Fox D, et al. Stapled haemorrhoidopexy for the treatment of haemorrhoids: a systematic review. *Colorectal disease : the official journal of the Association of Coloproctology of Great Britain and Ireland* 2009;11(3):233-43; discussion 43.
 10. Longo A. Treatment of hemorrhoidal disease by reduction of mucosa and hemorrhoidal prolapse with a circular stapler suturing device: a new procedure. *Proceeding of the 6th world Congress of Endoscopic Surgery*; 1998. p. 777-84. 59.
 11. Boccasanta P, Venturi M, Roviario G. Stapled transanal rectal resection versus stapled anopexy in the cure of hemorrhoids associated with rectal prolapse. A randomized controlled trial. *International journal of colorectal disease* 2007;22(3):245-51.
 12. Ng KH, Ho KS, Ooi BS, Tang CL, Eu KW. Experience of 3711 stapled haemorrhoidectomy operations. *The British journal of surgery* 2006;93(2):226-30.
 13. Chen CW, Kang JC, Wu CC, Hsiao CW, Jao SW. Modified Longo's stapled hemorrhoidopexy with additional traction sutures for the treatment of residual prolapsed piles. *International journal of colorectal disease* 2008;23(3):237-41.
 14. Johanson JF, Sonnenberg A. The prevalence of hemorrhoids and chronic constipation. An epidemiologic study. *Gastroenterology* 1990;98(2):380-6.
 15. Haas PA, Fox TA, Jr., Haas GP. The pathogenesis of hemorrhoids. *Diseases of the colon and rectum* 1984;27(7):442-50.
 16. Miles WEJSGO. Observations upon internal piles. 1919;29(497-506).
 17. Arabi Y, Alexander-Williams J, Keighley MR. Anal pressures in hemorrhoids and anal fissure. *American journal of surgery* 1977;134(5):608-10.
 18. Morinaga K, Hasuda K, Ikeda T. A novel therapy for internal hemorrhoids: ligation of the hemorrhoidal artery with a newly devised instrument (Moricorn) in conjunction with a Doppler flowmeter. *The American journal of gastroenterology* 1995; 90(4):610-3.
 19. American Gastroenterological Association medical position statement: Diagnosis and treatment of hemorrhoids. *Gastroenterology* 2004;126(5):1461-2.
 20. Lee JH, Kim HE, Kang JH, Shin JY, Song YM. Factors associated with hemorrhoids in Korean adults: Korean national health and nutrition examination survey. *Korean journal of family medicine* 2014;35(5):227-36.
 21. Loder PB, Kamm MA, Nicholls RJ, Phillips RK. Haemorrhoids: pathology, pathophysiology and aetiology. *The British journal of surgery* 1994;81(7):946-54.
 22. Pigot F, Siproudhis L, Allaert FA. Risk factors associated with hemorrhoidal symptoms in specialized consultation. *Gastroenterologie Clinique et biologique* 2005;29(12):1270-4.
 23. Mounsey AL, Halladay J, Sadiq TS. Hemorrhoids. *American family physician* 2011;84(2):204-10.
 24. Kelly SM, Sanowski RA, Foutch PG, Bellapravalu S, Haynes WC. A prospective comparison of anoscopy and fiberendoscopy in detecting anal lesions. *Journal of clinical gastroenterology* 1986;8(6):658-60.
 25. Alonso-Coello P, Mills E, Heels-Ansdell D, López-Yarto M, Zhou Q, Johanson JF, et al. Fiber for the treatment of hemorrhoids complications: a systematic review and meta-analysis. *The American journal of gastroenterology* 2006;101(1):181-8.
 26. Misra MC, Imlitemsu. Drug treatment of haemorrhoids. *Drugs* 2005;65(11):1481-91.
 27. Lohsiriwat V. Hemorrhoids: from basic pathophysiology to clinical management. *World journal of gastroenterology* 2012;18(17):2009-17.
 28. Perera N, Liolitsa D, Iype S, Croxford A, Yassin M, Lang P, et al. Phlebotonics for haemorrhoids. *The Cochrane database of systematic reviews* 2012(8):Cd004322.
 29. Moulton HP, Aubert M, De Parades V. Classical treatment of hemorrhoids. *Journal of visceral surgery* 2015;152(2 Suppl):S3-9.
 30. Lim DR, Cho DH, Lee JH, Moon JH. Comparison of a Hemorrhoidectomy With Ultrasonic Scalpel Versus a Conventional Hemorrhoidectomy. *Ann Coloproctol* 2016;32(3):111-6.
 31. Mott T, Latimer K, Edwards C. Hemorrhoids: Diagnosis and Treatment Options. *American family physician* 2018;97(3):172-9.
 32. Chen HL, Woo XB, Cui J, Chen CQ, Peng JS. Ligasure versus stapled hemorrhoidectomy in the treatment of hemorrhoids: a meta-analysis of randomized control trials. *Surgical laparoscopy, endoscopy & percutaneous techniques* 2014;24(4):285-9.
 33. Towliat Kashani SM, Mehrvarz S, Mousavi Naeini SM, Erfanian R. Milligan-Morgan Hemorrhoidectomy vs Stapled Hemorrhoidopexy. *Trauma Mon* 2012;16(4):175-7.
 34. Khafagy W, El Nakeeb A, Fouda E, Omar W, Elhak NG, Farid M, et al. Conventional haemorrhoidectomy, stapled haemorrhoidectomy, Doppler guided haemorrhoidectomy artery ligation; post-operative pain and anorectal manometric assessment. *Hepato-gastroenterology* 2009;56(93):1010-5.
 35. Mehigan BJ, Monson JR, Hartley JE. Stapling procedure for haemorrhoids versus Milligan-Morgan haemorrhoidectomy: randomized controlled trial. *Lancet* 2000;355(9206):782-5.
 36. Rowsell M, Bello M, Hemingway DM. Circumferential mucosectomy (stapled haemorrhoidectomy) versus conventional haemorrhoidectomy: randomised controlled trial. *Lancet* 2000;355(9206):779-81. 37. Peng BC, Jayne DG, Ho YH. Randomized trial of rubber band ligation vs. stapled hemorrhoidectomy for prolapsed piles. *Diseases of the colon and rectum* 2003;46(3):291-7; discussion 6-7.

38. Ceci F, Picchio M, Palimento D, Cali B, Corelli S, Spaziani E. Long-term outcome of stapled hemorrhoidopexy for Grade III and Grade IV hemorrhoids. *Diseases of the colon and rectum* 2008; 51(7): 1107-12.
39. Pescatori M, Gagliardi G. Postoperative complications after procedure for prolapsed hemorrhoids (PPH) and stapled transanal rectal resection (STARR) procedures. *Techniques in coloproctology* 2008;12(1):7-19.
40. di Visconte MS, Pasquali A, Mis TCJH. Main Disadvantages of Stapled Hemorrhoidopexy. 2018:325.