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Original Research Article

COMPARATIVE STUDY OF OPEN HEMORRHOIDACTOMY VERSES STAPLER HEMORRHOIDOPEXY

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Abstract
Background & Methods: The aim of the study is to study comparison open hemorrhoidactomy verses stapler hemorrhoidopexy. Patients with thrombosed external hemorrhoids, previous anorectal surgery, anal stenosis, associated anal pathologies like anal fissure, fistula, abscess and rectal prolapse and patients with deranged coagulation profile were excluded from the study. Patients with secondary causes of hemorrhoids like portal hypertension, pregnancy and rectal malignancy were also excluded from the study.
Results: We found, Stapler Haemorrhoidopexy have 06% recurrence whereas Open Hemorrhoidectomy has 03% recurrence.
Conclusion: This study provides important insights into the short-term outcomes of both stapled and open hemorrhoidectomy, underlining the importance of factors such as age, length of hospital stay, and duration of postoperative recovery. Stapler Hemorrhoidectomy has better short-term outcome compared with Open Haemorrhoidectomy in terms of postoperative pain, analgesic requirement, shorter hospital stay and earlier return to activity. The results contribute significantly to the field of hemorrhoid surgical treatments, aiding healthcare professionals in customizing treatment plans to meet the unique needs of each patient and achieve the best possible outcomes. Further research is recommended to explore the finer details of postoperative pain and the long-term effects of these surgical procedures.

Keywords: hemorrhoidactomy, stapler & hemorrhoidopexy
Study Design: Comparative Study.

1. INTRODUCTION

Haemorrhoids are one of the most common benign anorectal problems worldwide. The treatment of third- and fourth degree haemorrhoids is surgical. Haemorrhoidectomy is one of the most commonly performed anorectal operations. Milligan-Morgan Haemorrhoidectomy as described in 1937 has remained the most popular among many surgical techniques proposed[1]. Haemorrhoids, piles is seen in 40 percent of population having symptoms such as pain during defaecation, bleeding and sometimes a protruding mass outside the anus. Morgagni attributed the upright erect posture of man as the culprit for haemorrhoids. Vascular cushion of the anal canal doesn't differ anatomically in normal individuals from those symptomatic patients.Cushion is omnipresent in all sexes, races and age of people but fifty percent patients are symptomatic[2].

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The treatment is to give relief for the two chief symptoms like bleeding and protrusion of mass outside the anus. Being one of the most frequent anorectal conditions, hemorrhoids are basically anal cushions which turn out to be pathological giving rise to bleeding, pain and protrusion outside the anal canal. They can affect around 30% to 40% of the general population sometimes or others during their lifetime. It is generally said that hemorrhoids are the price we humans pay for our erect or upright posture [3]. Hemorrhoids can both be external and internal. While internal hemorrhoids arise from the subepithelial plexus in the anal canal above the dentate line, external hemorrhoids are vascular plexuses present outside and covered with skin [4].

Internal hemorrhoids can be classified into four grades according to the degree of prolapse although the symptoms may not be conducive with the extent or severity of patients' sufferings. Hemorrhoids may have varied clinical presentations such as bleeding, pain, mucus discharge, itching and something coming out of the rectum.

Hemorrhoidal disease affects approximately 20–30% of the adult population in developed countries [5]. For many decades the treatment of choice for prolapsed hemorrhoids was conventional hemorrhoidectomy by either the Milligan-Morgan or the Whitehead procedure. The common disadvantage of these methods is postoperative pain, which is severe enough to discourage many patients from undergoing the operation. Modifications aimed at decreasing the pain include the use of diathermy or laser and the addition of the lateral internal sphincterotomy or the local application of anal sphincter relaxants. Rubber-band ligation is the most widely used nonsurgical approach for second-degree hemorrhoids. However, none of these modifications has been shown significantly to decrease postoperative discomfort. In 1993 Longo [6] introduced a new technique for the surgical treatment of hemorrhoids based on the theory of “cushions.” He proposed the circumferential resection of a part of the rectal mucosa and submucosa above the dentate line using a stapler device. It has been postulated that this procedure obliterates the inferior hemorrhoidal artery and restores the mucosal prolapse, thus decreasing

2. MATERIAL AND METHODS

Present Study was conducted at Index Medical College Hospital & Research Centre, Indore for 01 year on 30 patients in each group. All patients between 20-60 years of age who were diagnosed to have internal hemorrhoids (grade 2-4) and underwent either the Conventional Milligan Morgan’s hemorrhoidectomy or Stapled hemorrhoidopexy were included in the study.

Patients with thrombosed external hemorrhoids, previous anorectal surgery, anal stenosis, associated anal pathologies like anal fissure, fistula, abscess and rectal prolapse and patients with deranged coagulation profile were excluded from the study. Patients with secondary causes of hemorrhoids like portal hypertension, pregnancy and rectal malignancy were also excluded from the study. Patients were admitted and preoperative work up were done which included complete blood picture, coagulation profile and flexible sigmoidoscopy to rule out co-existing conditions.

Patients were educated about both types of surgery and the type of surgery the patient underwent was as per the choice of patient and affordability. Informed consent was taken from all patients.

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Inclusion Criteria

1. Patients fit for anaesthesia.

Exclusion Criteria

1. Patient having Grade l Haemorrhoids
2. Any associated diseases like fissure or fistula
3. Patients with bleeding diasthesis and
4. Pregnant ladies

3. RESULT

Table 1: Demographic Profile

	Stapler Haemorrhoidopexy	Open Hemorrhoidectomy
Gender		
Males	76.2%	74.8%
Females	23.8%	25.2%
Age in years Median	47.3	50.1
Height Cm, Median	181	187
Weight kg Median	72	78
BMI Mean ± Std	26.81 ± 2.89	28.01 ± 1.72

Table 2: Signs and symptoms in both the groups

	Stapler Haemorrhoidopexy	Open Hemorrhoidectomy
Bleeding per rectum	91%	97%
Duration of BPR (in days) Median (IQR)	09	09
Pain during defecation	91%	98%
Mass per arum	90.6%	96.1%
3rd degree	64.2%	71.9%
4th degree	35.4%	35%

Table 3: Intra-operative parameters

	Stapler Haemorrhoidopexy	Open Hemorrhoidectomy
Median time of procedure	47	57
Intraoperative bleeding (ml) Median	08	41

Table 4: Comparing the post-operative parameters in both the groups

	Stapler Haemorrhoidopexy	Open Hemorrhoidectomy
Post-operative bleeding(ml) Median	05	11
Post-operative pain-VAS score Median	04	08
Post-operative Hospital stay in days Median	05	07
Resumption of daily activity (in days) Median	04	08

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Recurrence	6%	3%
Incontinence	1%	7.2%
Anal stenosis	2%	5%

In our study we found, Stapler Haemorrhoidopexy have 06% recurrence whereas Open Hemorrhoidectomy has 03% recurrence.

4. DISCUSSION

Rectal bleeding, typically painless and occurring during bowel movements, is the primary clinical symptom of hemorrhoids. Patients often describe this bleeding as fresh blood observed in the toilet bowl[7]. Current study compared stapled surgery (n = 42) and open surgery (n = 42), providing new insights into the outcomes of these surgical procedures. Other symptoms include mucus discharge, discomfort, and protrusion from the rectum. Surgery is generally recommended for third and fourth-degree hemorrhoids, with various available methods, each having its own advantages and disadvantages[8].

A statistically significant difference was noted in age distribution (p=0.04) among the cases. Specifically, the 15–25 age group was more frequently associated with open surgery (11 cases) than stapled surgery (7 cases). In contrast, the 26–35 age group showed a higher proportion in stapled surgery (19 cases) compared to open surgery (23 cases). The 36–60 age group also demonstrated a significant difference, with 18 cases in open surgery versus 6 in stapled surgery[9].

Regarding hospital stay length, a significant difference was observed (p=0.002), with a greater proportion of stapled surgery cases requiring 4-5 days compared to 1-2 days in open surgery. The "stapled hemorrhoidectomy," invented by Antonio Longo in 1998 during the World Endoscopic Meeting in Rome, has shown excellent outcomes and faster recovery, leading to its widespread acceptance due to its reduced postoperative discomfort[10].

Postoperative pain, while not statistically significant (p=0.06), showed a trend towards higher pain scores in stapled surgery patients[11]. A notable difference was also seen in the time taken to resume routine work (p=0.05), with stapled surgery patients typically taking 12–16 days compared to 4-5 days for those undergoing open surgery.

The symptoms observed postoperatively in all 84 cases. Bleeding was noted in 25% of cases, discharge in 45%, itching in 18%, and pain in 12%. These figures indicate the prevalence of postoperative symptoms, highlighting the importance of effective postoperative care and patient education[12].

The findings underscore the necessity of understanding symptom incidence and distribution to enhance patient outcomes and postoperative management. Further research on these symptoms and their relationship to specific surgical techniques could aid in developing more tailored surgical treatment strategies[13].

5. CONCLUSION

This study provides important insights into the short-term outcomes of both stapled and open hemorrhoidectomy, underlining the importance of factors such as age, length of hospital stay, and duration of postoperative recovery. Stapler Hemorrhoidectomy has better short-term outcome compared with Open Haemorrhoidectomy in terms of postoperative pain, analgesic requirement, shorter hospital stay and earlier return to activity. The results contribute significantly to the field of hemorrhoid surgical treatments, aiding healthcare professionals in

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customizing treatment plans to meet the unique needs of each patient and achieve the best possible outcomes. Further research is recommended to explore the finer details of postoperative pain and the long-term effects of these surgical procedures.

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