



A COMPARATIVE STUDY BETWEEN MIPH AND OPEN HEMORRHOIDECTOMY IN TERMS OF PAIN, BLEEDING AND RECURRENCE

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ABSTRACT **Introduction:** Minimally invasive procedure for hemorrhoids (stapler hemorrhoidectomy) has been considered as a novel technique in the surgical treatment of prolapsed hemorrhoids. Although it involves substantial added cost, it resulted in shorter period of convalescence in comparison with Open hemorrhoidectomy. **Aim:** To investigate and compare the outcome and post-operative complications in patients with grade 2, 3 and 4 hemorrhoids who underwent hemorrhoidectomy with either Stapler hemorrhoidectomy or Milligan Morgan hemorrhoidectomy. **Methods:** A total of 80 patients between the age group 28 to 40 years who were diagnosed with grade 2, 3 and 4 hemorrhoids, were divided into two groups equally. Group- 1 contains 40 Patients undergoing Stapler hemorrhoidectomy and Group- 2 contains 40 Patients undergoing Open hemorrhoidectomy/Milligan Morgan. Post-operatively patients of both the groups were assessed for bleeding, pain against pre-operative symptom profile, development of recurrence and long-term complications. Results: MIPH is associated with significantly less post operative pain ($p < 0.05$), less post operative bleeding ($p < 0.05$) and equal recurrence, when compared with open hemorrhoidectomy. **Conclusion:** Both methods were effective in the treatment of hemorrhoidectomy, however the advantages of Stapler hemorrhoidectomy in terms of lesser operative time and intra and post-operative bleeding and lower incidence of various post-operative complications was observed.

KEYWORDS : Stapler hemorrhoidectomy; Milligan Morgan hemorrhoidectomy; Surgical procedures; Hemorrhoids; Piles

INTRODUCTION

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.

Treatment options for haemorrhoids are varied, ranging from a conservative approach to band ligation to surgery. However, many new options have been introduced since the turn of the century, one of which is Minimally invasive procedure for hemorrhoids (stapler hemorrhoidectomy). The newer methods aim to reduce harm whilst maintaining or improving on outcome. In this study, various treatment options for hemorrhoids are reviewed and conventional open hemorrhoidectomy is compared with MIPH, emphasizing on post operative pain, recurrence and bleeding.

AIMS AND OBJECTIVES

- To compare open hemorrhoidectomy and MIPH in terms of post operative pain, bleeding and recurrence.
- To determine which among the 2 methods is better in terms of less post-operative complications and faster recovery.

Source of Data

The study group comprises of patients operated for grade 2, grade 3 and grade 4 hemorrhoids - a sample size of 40 patients between the age group 28 to 40 years each operated by open technique and by MIPH was taken. The study group was taken from patients admitted at Civil Hospital, Ahmedabad

Method of Data Collection

Data of patients operated for Hemorrhoids- either Open hemorrhoidectomy or MIPH from September 2020 to April 2021 at Civil Hospital, Ahmedabad under department of General Surgery was taken from operative records. 40 patients of each technique- open and MIPH were selected randomly from this study population.

Group A - consisted of patients operated by MIPH

Group B - consisted of patients operated by open hemorrhoidectomy

This is a prospective observational study.

All 80 patients were followed up after surgery for occurrence of post

operative pain/ bleeding and recurrence and the duration each patient took to resume work/ routine activities.

For scoring of pain, a Wong Baker Faces Pain Rating Scale was used wherein patients choose the face that best describes the pain. Accordingly, a numeric value is given to grade their pain on a scale of 0 to 10 (0,2,4,6,8,10) on the day of surgery and on the 3rd and 7th post operative day.



Figure: 1 Wong Baker Faces Pain Rating Scale

Post operative bleeding was defined as either:

Mild: occurring within 3 days following surgery, commonly during defecation, not requiring any intervention or pack placement.

Significant: occurring within 3 days following surgery and requiring intervention, either in the form of pack placement or surgical intervention

Inclusion Criteria

- All patients having Grade 2, 3 or 4 internal hemorrhoids admitted for plan of surgery were included.

Exclusion Criteria

- Patients having hemorrhoids with associated diseases like fistula in ano or fissure in ano.
- Patients having previous history of hemorrhoidectomy.

Followup period – On 3rd postoperative day and 7th postoperative day. Thereafter, follow up was done at 1 month, 6 month, 1 year and 1.5 year.

OBSERVATIONS AND RESULTS PRESENTING COMPLAINTS

Table 1: GRADING OF DISEASE

SYMPTOM	NO.OF PATIENTS	PERCENTAGE
Something coming out pr	74	92.5
Bleeding per rectum	60	75
Painful defecation	21	26.2
Constipation	58	72.5
Something coming out pr + Bleeding pr	54	67.5
Something coming out pr + constipation	53	66.25

In a total number of 80 patients, 33 were diagnosed to have grade 2 haemorrhoids, 39 were of grade 3 haemorrhoids and 8 were diagnosed to have grade 4 hemorrhoids.

Table 2: POST OPERATIVE STAY

	Open hemorrhoidectomy	MIPH
Grade 2	21	12
Grade 3	13	25
Grade 4	5	3

Table 3: POST OPERATIVE COMPLICATIONS

	Open hemorrhoidectomy	MIPH
POD 1	7	25
POD 2	19	12
POD 3	12	2
POD 4	2	1

1. PAIN

Figure 2

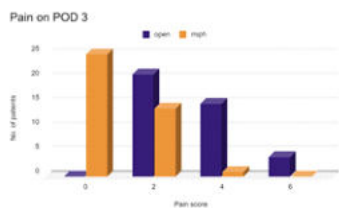
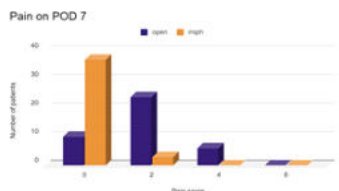


Figure 3



2. BLEEDING PER RECTUM

Table 4:

BLEEDING	mild/trace	moderate/severe
Open technique	20(50%)	0
MIPH	8(20%)	1(2.5%)

3. RECURRENCE

Table 5:

	6 months	1 year	1.5 year
Open technique	0	1(2.5%)	1(2.5%)
MIPH	0	0	1(2.5%)

DURATION OF RETURN TO WORK

In patients operated for MIPH, average duration of return to work after surgery is 4.45 days and ranges from 3 to 7 days.

In patients operated for open hemorrhoidectomy, average duration of return to work is 9.6 days and ranges from 6-14 days.

DISCUSSION

At least 50% of the people over the age of 50 have some degree of hemorrhoid formation. [14],[15] Most frequently used procedures are Milligan-Morgan open hemorrhoidectomy and Ferguson closed hemorrhoidectomy techniques. In 1993, Longo Milton stapled hemorrhoidectomy technique was introduced as substitute to conventional techniques for operative management of hemorrhoidal disease. It was refined by Longo in 1998. Stapled hemorrhoidectomy

received much enthusiasm as it offers patients a significantly improved postoperative comfort level, which is ascribable to the fact that the mucosal incision and staple lines are placed well above the dentate line and the highly sensitive perianal skin is left intact. However, conventional hemorrhoidectomy still remains one of the most popular methods. In our study, we have observed that MIPH is associated with significantly less post operative pain (p<0.05), less post operative bleeding(p<0.05) and equal recurrence, when compared with open hemorrhoidectomy. Stapler hemorrhoidectomy technique was quicker to perform in comparison with Open hemorrhoidectomy. Hospitalisation and duration of resumption to daily activity was less in Stapler hemorrhoidectomy group as compared to Open hemorrhoidectomy/Milligan Morgan group.

CONCLUSION

Minimally invasive procedure for hemorrhoids is increasingly getting popular as a surgical option for hemorrhoids. Conventional open hemorrhoidectomy still remains one of the most commonly practiced. When compared to Open hemorrhoidectomy, MIPH is associated with significantly less post operative pain in terms of intensity and duration following surgery.

In post operative period, bleeding per rectum was observed less commonly in patients operated by MIPH method.

In our study, on a 1.5 year follow up to look for recurrence - both groups- MIPH and open showed equal recurrence. However, a larger sample size and a longer follow up is required to substantiate the results.

In our study along with several other studies, MIPH has consistently been associated with less postoperative pain, less duration of stay in the hospital and early return to work as compared to open hemorrhoidectomy.

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