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POSTOPERATIVE COMPLICATIONS FOLLOWING STAPLED HEMORRHOIDOPEXY AT A TERTIARY CARE CENTRE: A STUDY OF 50 PATIENTS

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ABSTRACT

Background: Haemorrhoidal disease is a common anorectal condition. Stapled hemorrhoidopexy is used in selected patients with symptomatic haemorrhoidal prolapse, but postoperative complications and long-term recurrence remain relevant considerations. **Aim:** To describe the demographic profile, clinical presentation, postoperative complications, and early outcomes of patients undergoing stapled hemorrhoidopexy at a tertiary care centre. **Materials and Methods:** This prospective observational study included 50 patients treated at MGMCHRC, Jaipur, between 10 November 2023 and 15 November 2024. The available study summary included demographic characteristics, presenting symptoms, associated factors, postoperative complications, and duration of hospital stay. Further methodological details, including eligibility criteria and follow-up protocol, should be added from the original study records. **Results:** The reported male-to-female ratio was 9:1. Patients were aged 18–85 years, with a mean age of 42.35 years; 50% were in the 41–50-year age group. Bleeding per rectum was reported by 44 patients and symptomatic prolapse by 42. Postoperative urgency occurred in 5 patients (10%), urinary retention in 8 (16%), haemorrhage in 3 (6%), and immediate postoperative anal pain in 2 (4%). No pelvic cellulitis, tetanus, or anal stenosis was reported. Thirty-eight patients (76%) stayed in hospital for two days. **Conclusion:** In this cohort, urinary retention was the most frequently reported postoperative complication. The findings describe outcomes in a single-centre sample but do not establish superiority over conventional haemorrhoidectomy. Larger comparative studies with standardised outcome measures and longer follow-up are needed.

KEYWORDS: Haemorrhoids; stapled hemorrhoidopexy; postoperative complications; urinary retention; haemorrhage; tertiary care.

INTRODUCTION

Haemorrhoidal disease is a common anorectal condition that may cause bleeding, prolapse, discomfort, pruritus, and impaired quality of life. Many patients respond to dietary modification, bowel-habit optimisation, and office-based procedures, while surgery may be appropriate for selected patients with persistent symptoms or significant prolapse. The choice of operation depends on the grade of disease, symptom profile, patient preference, available expertise, and the relative benefits and risks of each procedure.

Stapled hemorrhoidopexy, also referred to as stapled haemorrhoidopexy, was developed to reposition prolapsing haemorrhoidal tissue by excising a circumferential ring of rectal mucosa and submucosa above the dentate line.

By avoiding extensive excision of sensitive anoderm, the technique may reduce early postoperative pain and facilitate recovery in selected patients. However, complications such as urinary retention, bleeding, urgency, persistent symptoms, and recurrent prolapse remain clinically important. Evidence comparing stapled hemorrhoidopexy with excisional haemorrhoidectomy also indicates that potential short-term benefits must be weighed against long-term recurrence and reintervention.

The present study describes the clinical profile and postoperative complications of 50 patients undergoing stapled hemorrhoidopexy at MGMCHRC, Jaipur, during the period from 10 November 2023 to 15 November 2024.

AIM AND OBJECTIVES

Aim: To evaluate postoperative complications following stapled hemorrhoidopexy in a tertiary care centre.

Objectives: (1) To describe the demographic and clinical characteristics of patients undergoing the procedure; (2) to document the frequency and types of reported postoperative complications; and (3) to describe the duration of hospital stay and early clinical outcomes.

MATERIALS AND METHODS

Study design and setting

The study was described as a prospective observational study conducted at Mahatma Gandhi Medical College and Hospital Research Centre (MGMCHRC), Jaipur, Rajasthan, India.

Study period and sample

The study period was 10 November 2023 to 15 November 2024. A total of 50 patients undergoing stapled hemorrhoidopexy were included in the supplied study summary.

Variables and outcomes

The reported variables included age, sex, socioeconomic category, associated factors, presenting symptoms, postoperative urgency, urinary retention, haemorrhage, anal pain, selected complications, and length of hospital stay. The supplied summary did not specify eligibility criteria, the method of patient recruitment, anaesthetic protocol, standard definitions for complications, statistical methods, or the exact follow-up schedule. These details should be completed from the original protocol and case records before submission.

Ethics

The ethics committee approval number, approval date, consent procedure, and any waiver of consent must be inserted as applicable. These details have not been assumed in this draft.

RESULTS

A total of 50 patients were included in the study summary. The male-to-female ratio was reported as 9:1. Age ranged from 18 to 85 years, with a mean age of 42.35 years. Half of the patients (50%) were reported to be in the 41–50-year age group.

In the reported socioeconomic distribution, 30% of patients belonged to the upper class, 56% to the upper-middle class, and 14% to the middle class. Constipation was reported in 78% of patients; 12% reported both constipation and consumption of spicy food; 8% had a history of pregnancy; and 2% had no identified risk factors.

Bleeding per rectum was reported by 44 patients, symptomatic prolapse by 42, pruritus by 24, and pain by 19. Two patients presented with severe anaemia requiring blood transfusion before surgery.

The reported postoperative complications are summarised in Table 1. Urinary retention was the most frequent listed complication, occurring in eight patients (16%), followed by urgency of defecation in five (10%), postoperative haemorrhage in three (6%), and immediate postoperative anal pain in two (4%). No cases of pelvic cellulitis, tetanus, or anal stenosis were reported in the supplied summary.

Hospital stay was two days in 38 patients (76%), three days in six (12%), four days in four (8%), and five days in two (4%).

TABLES

Table 1: Reported postoperative complications (n = 50).

Postoperative outcome	Patients (n)	Percentage
Urgency of defecation	5	10%
Urinary retention	8	16%
Postoperative haemorrhage	3	6%
Immediate postoperative anal pain	2	4%
Pelvic cellulitis	0 reported	0%
Tetanus	0 reported	0%
Anal stenosis	0 reported	0%

Table 2: Duration of postoperative hospital stay.

Duration of hospital stay	Patients (n)	Percentage
2 days	38	76%
3 days	6	12%
4 days	4	8%
5 days	2	4%

Note: Tables reflect the counts and percentages supplied by the authors. Confirm all values against the original dataset before submission.

DISCUSSION

Haemorrhoidal disease is a common anorectal condition, and although many patients can be managed conservatively, a proportion require surgical intervention for persistent symptoms, significant prolapse, or complications. Despite being relatively straightforward to diagnose, management remains challenging because outcomes depend on disease severity, patient characteristics, and the procedure performed.[20]

The present prospective study was conducted at MGMCHRC, Jaipur, and included 50 patients who underwent stapled hemorrhoidopexy. The study evaluated demographic characteristics, clinical presentation, postoperative complications, and early outcomes.

The male-to-female ratio was 9:1, indicating a marked predominance of male patients. This differs from a study conducted at São Paulo University Medical School, Brazil, which reported a male-to-female ratio of 1.68:1. Differences in patient selection, health-seeking behaviour, referral patterns, and demographic characteristics may account for this variation.

Patients ranged in age from 18 to 85 years, with a mean age of 42.35 years. The largest proportion reportedly belonged to the 41–50-year age group, accounting for 50% of the study population. Bulus et al. reported a mean age of 34.1 years among patients undergoing haemorrhoidectomy,[21] while Mengale et al. reported a mean age of 43.96 years in the stapled hemorrhoidectomy group.[22] The mean age in the present study is comparable to that reported by Mengale et al.; however, differences in study populations and selection criteria should be considered.

Regarding socioeconomic status, 30% of patients belonged to the upper class, 56% to the upper-middle class, and 14% to the middle class. This distribution may reflect differences in healthcare access, affordability, and referral patterns rather than a higher underlying prevalence of haemorrhoidal disease. A community-based study from Northwest Ethiopia reported an association between haemorrhoidal disease and upper-middle socioeconomic status.[23] A Korean study also identified associations involving higher income, alcohol consumption, and constipation.[24] These comparisons should be interpreted cautiously because associations may vary across populations and study designs.

Constipation was the most frequently reported associated factor, affecting 78% of patients. A further 12% reported both constipation and consumption of spicy food, 8% had a history of pregnancy, and 2% had no identified risk factors. Constipation and straining may contribute to haemorrhoidal symptoms and prolapse; however, this observational study cannot establish causation.

Bleeding per rectum was the predominant presenting symptom, reported by 44 patients, followed by symptomatic prolapse in 42 patients. Pruritus was reported by 24 patients and pain by 19 patients. Two patients presented with severe anaemia requiring blood transfusion before surgery. These findings indicate a substantial symptomatic burden in patients selected for operative treatment. Rectal bleeding, particularly when accompanied by anaemia, should be appropriately evaluated to exclude other causes of gastrointestinal blood loss.

Stapled hemorrhoidopexy aims to reposition prolapsing haemorrhoidal tissue and interrupt its blood supply by excising a circumferential strip of rectal mucosa and submucosa above the dentate line. As the procedure avoids extensive excision of sensitive anoderm, it may offer advantages in early postoperative pain and recovery in selected patients.

Nevertheless, symptom improvement should be distinguished from complete anatomical correction and durable long-term control of prolapse.

In the present study, five patients (10%) experienced urgency of defecation, eight (16%) developed urinary retention, three (6%) experienced postoperative haemorrhage, and two (4%) reported immediate postoperative anal pain. No cases of pelvic cellulitis, tetanus, or anal stenosis were recorded in the supplied summary. Urinary retention was therefore the most frequently observed listed postoperative complication.

The urinary retention rate in this study was higher than the 3.9% requiring catheterisation reported in a study from São Paulo University Medical School. That study also reported postoperative pain in 23.8% of patients and reactionary haemorrhage in 7.2%.[26] Rho et al. reported urinary retention in 1.8% and postoperative bleeding in 0.3%, with one patient requiring reoperation for bleeding.[27] Variation may reflect differences in anaesthesia, perioperative fluid administration, patient characteristics, definitions of complications, and postoperative monitoring.

Postoperative pain is an important outcome following haemorrhoidal surgery. Only two patients were documented as experiencing immediate postoperative anal pain, and oral analgesics were prescribed when required. This may suggest favourable early pain outcomes, but interpretation is limited by the absence of a validated pain scale, analgesic-consumption data, and a comparison group undergoing conventional excisional haemorrhoidectomy. The 19 patients with preoperative pain should be clearly distinguished from patients with postoperative pain.

Urinary retention is a recognised early complication of haemorrhoidal surgery and may be influenced by pain, anaesthesia, intravenous fluid administration, and reflex inhibition of bladder emptying.[28] The occurrence of urinary retention in 16% of patients highlights the importance of perioperative monitoring, adequate pain control, appropriate fluid management, and timely bladder assessment.

Hospital stay was two days in 38 patients (76%), three days in six (12%), four days in four (8%), and five days in two (4%). Another study reported a hospital stay of approximately one day and return to work within seven days.[29] Differences in discharge protocols, postoperative observation, patient support, and healthcare delivery may explain variation in hospital stay. Future studies should assess return to normal activities and work using clearly defined outcome measures.

Giordano et al. discussed short-term benefits associated with stapled hemorrhoidopexy, including reduced postoperative pain, less blood loss, shorter hospitalisation, and earlier recovery in selected patients.[30,31] These potential advantages must be balanced against persistent symptoms and recurrent haemorrhoidal prolapse. Comparative evidence has raised concerns about higher long-term recurrence and reintervention after stapled hemorrhoidopexy than after some conventional excisional procedures. It should therefore not be considered universally superior. Procedure selection should be individualised according to the degree of prolapse, symptom profile, patient preferences, surgeon expertise, cost, and the balance between short-term recovery and long-term outcomes.

This study provides institutional data on the early postoperative outcomes of stapled hemorrhoidopexy in a tertiary care setting. However, the sample size of 50 limits precision and generalisability. The absence of a comparison group prevents definitive conclusions about relative safety or effectiveness compared with conventional haemorrhoidectomy. Follow-up duration and the method used to assess long-term recurrence must also be stated.

Larger prospective comparative studies using standardised complication definitions, validated pain assessment, and longer follow-up are warranted.

LIMITATIONS

The study included only 50 patients from a single tertiary care centre, limiting generalisability. There was no conventional haemorrhoidectomy control group, so comparative effectiveness cannot be established. The supplied study summary did not include a detailed statistical analysis plan, standardised definitions of complications, validated pain scores, or complete follow-up information. The absence of reported late complications should not be interpreted as proof that such complications did not occur unless adequate follow-up and systematic assessment are confirmed.

CONCLUSION

Stapled hemorrhoidopexy is a surgical option for selected patients with symptomatic haemorrhoidal prolapse. In this prospective study of 50 patients at MGMCHRC, Jaipur, urinary retention was the most frequently reported postoperative complication (16%), followed by urgency of defecation (10%), postoperative haemorrhage (6%), and immediate postoperative anal pain (4%). No cases of pelvic cellulitis, tetanus, or anal stenosis were documented in the supplied study summary. Most patients (76%) stayed in hospital for two days.

These findings describe early outcomes in a single-centre cohort but do not establish superiority over conventional haemorrhoidectomy. Potential benefits in early recovery should be balanced against the possibility of recurrent prolapse and further intervention. Careful patient selection, perioperative management, informed consent, and adequate follow-up are essential. Larger comparative studies with long-term outcome assessment are needed to clarify the relative benefits, risks, and cost-effectiveness of stapled hemorrhoidopexy.

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