

# Haemorrhoid Placation Efficacy Without Anal Packing

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## ABSTRACT

**Background:** Routine anal packing after hemorrhoid surgery is a major cause of postoperative pain and urinary retention. Aim: To evaluate safety and efficacy of hemorrhoid plication performed without any intra-anal packing.

**Methods:** Fifty consecutive patients with grade II–IV internal hemorrhoids underwent plication using Vicryl 2-0 sutures under saddle anesthesia (January–December 2024). No intra-anal packing was used. Outcomes assessed were postoperative pain, bleeding, urinary retention, hospital stay, complications, and patient satisfaction over 6 months.

**Results:** Mean age  $41.6 \pm 14.2$  years; M: F = 36:14. Bleeding per rectum was universal (100%). Severe postoperative pain requiring regular analgesics: 0%. Early hemorrhage: 6%, delayed hemorrhage: 12% (all managed conservatively). Urinary retention: 4%. Hospital stay <48 h in 90%. No anal stenosis or recurrence at 6 months. High satisfaction: 78%.

**Conclusion:** Hemorrhoid plication without anal packing is safe, virtually painless, and associated with minimal complications and early discharge.

**Keywords:** Hemorrhoids, Plication, Mucopexy, Anal packing, Postoperative pain, Urinary retention.

## INTRODUCTION

Hemorrhoids represent dilated submucosal vascular cushions that have prolapsed distal to the dentate line.<sup>1</sup> Common presenting symptoms include painless bright-red rectal bleeding, pruritus ani, and mucosal prolapse.<sup>2</sup> Hemorrhoidal cushions are normal anatomical structures composed of vascular tissue, smooth muscle (Treizt muscle), and elastic connective tissue.<sup>3</sup> They contribute approximately 15–20% of resting anal pressure and play a vital role in continence and sensory discrimination.<sup>4</sup> Pathogenesis involves chronic straining, constipation, low-fiber diet, pregnancy, and absence of valves within the hemorrhoidal venous plexus, leading to venous dilatation and cushion displacement.<sup>5–7</sup> Differential diagnoses include anal fissure, skin tags, perianal abscess/fistula, condylomata acuminata, inflammatory bowel disease, and colorectal malignancy.<sup>8</sup> Although anal packing is traditionally used to control bleeding after hemorrhoid surgery, it is the single most important cause of severe postoperative pain and acute urinary retention.<sup>9–11</sup> Hemorrhoid plication (ligation and mucopexy) is a tissue-preserving technique that occludes feeding vessels and fixes prolapsing mucosa/submucosa without excision.<sup>12–14</sup> We conducted this prospective study to assess the safety, efficacy, and postoperative outcomes of hemorrhoid plication performed without any intra-anal packing.

## MATERIALS & METHODS

This prospective observational study was conducted at the Department of Surgery, Government Medical College and Hospital, Kota, Rajasthan, from January to December 2024 after institutional ethical clearance.

**Inclusion criteria:** Patients of any age and gender with grade II–IV internal hemorrhoids.

**Exclusion criteria:** Thrombosed hemorrhoids, portal hypertension, coagulopathy, or associated anal pathology requiring additional procedures. Preoperative preparation included liquid diet, phosphate enema (night before and morning of surgery), and tetanus prophylaxis.

**Surgical technique** Under saddle anesthesia and lithotomy position with mild Trendelenburg tilt:

- Gentle four-finger anal dilatation

- Identification and grasping of each primary hemorrhoidal cushion distal to dentate line
- Continuous plication suture using Vicryl 2-0 round-body needle from distal to proximal direction to occlude feeding vessels
- Procedure repeated for all three primary piles
- No intra-anal packing; only external dressing and T-bandage applied

Patients were observed for 6–48 hours and followed up monthly for 6 months.

Statistical Analysis Data were analyzed using Microsoft Excel and SPSS v.26 for descriptive statistics

## RESULT

Fifty patients (36 males, 14 females) with mean age  $41.6 \pm 14.2$  years (range 15–82) were included. Most of the patients were between 21–50 years of age (76%). Males were predominantly affected as compared to females (Figure 1 & 2).

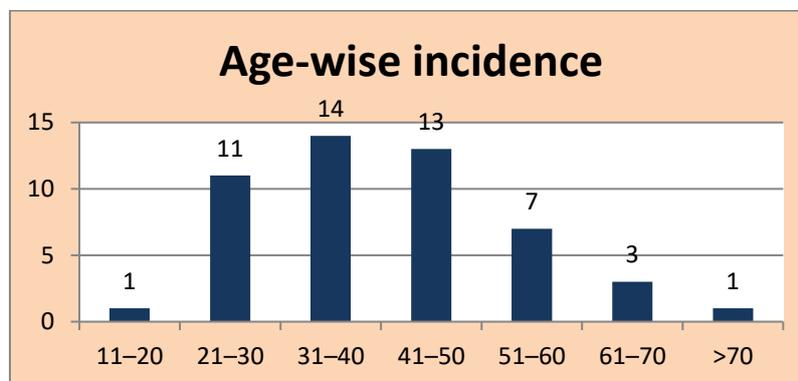


Figure 1: Age-wise distribution of incidence

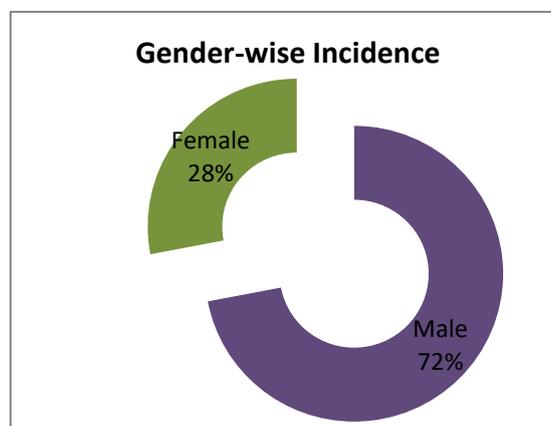


Figure 2: Gender-wise distribution of incidence

Table 1 shows the symptomatology of patients included in the study. Bleeding per rectum was seen in all patient, while constipation (68%) was second most common symptom.

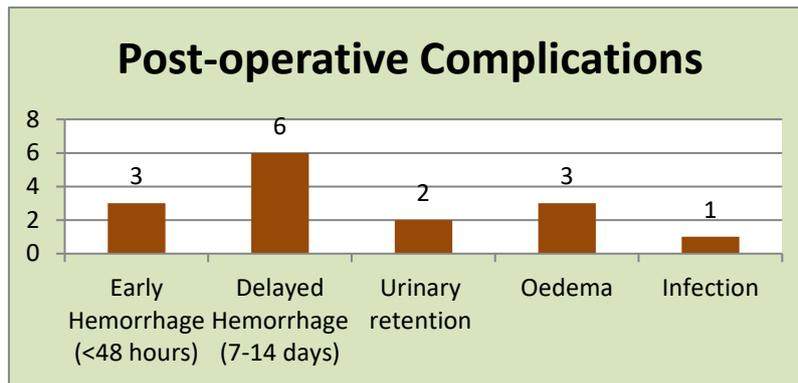
**Table 1: Clinical Features in study population**

| Clinical Features     | Number of patients     | percentage |
|-----------------------|------------------------|------------|
| Bleeding per rectum   | 50                     | 100%       |
| Constipation          | 34                     | 68%        |
| Pain                  | 8 (6 males, 2 females) | 16%        |
| Prolapse              | 2 (males only)         | 4%         |
| Degree of hemorrhoids |                        |            |
| II                    | 18                     | 36%        |
| III                   | 29                     | 58%        |
| IV                    | 3                      | 6%         |

Ninety percent patients of our study have hospital stay of less than 48 hours. (Table 2)

**Table 2: Hospital stay of patients**

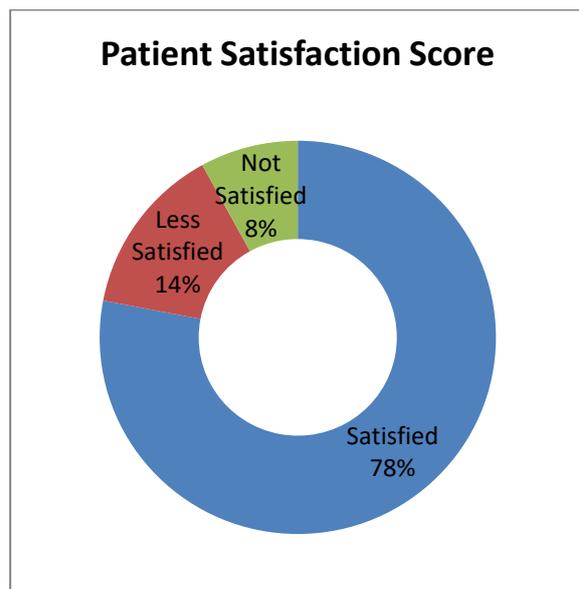
| Hospital stays | Number of patients | percentage |
|----------------|--------------------|------------|
| <24 hours      | 19                 | 38%        |
| 24-48 hours    | 26                 | 52%        |
| >48 hours      | 5                  | 10%        |



**Figure 3: Post-operative Complications**

Delayed haemorrhage (12%) was most common post-operative complication. Notably, no patients developed anal strictures or recurrence within the 6-month follow-up period. (Figure 3)

In our study 78% patients reported high satisfaction during follow-up, 14% were less satisfied, but didn't experience post-operative complications and 8% were dis-satisfied due to minor issues like oedema and itching, which were addressed through counseling, lubricants, and stool softeners. These results indicate a generally positive outcome, with most patients experiencing satisfactory recovery. (Figure 4)



**Figure 4: Patient satisfaction score**

## DISCUSSION

The present study demonstrates that hemorrhoid plication without intra-anal packing is associated with negligible postoperative pain, very low urinary retention (4%), acceptable bleeding rates, and early discharge (<48 hours in 90%). These findings align with previous reports on plication/mucopexy techniques.<sup>12-18</sup> Severe pain and urinary retention after conventional hemorrhoidectomy or stapled hemorrhoidopexy are largely attributable to anal packing.<sup>9-11</sup> Omission of packing in our series virtually eliminated severe pain and reduced urinary retention to 4% (vs 9–23% in literature).<sup>15-17</sup> Bleeding was easily controlled conservatively, comparable to rates reported by Dowidar et al.,<sup>17</sup> and others.<sup>12-14</sup> Early return to work and absence of long-term complications further establish this as a safe, cost-effective, day-care procedure.

## CONCLUSION

Hemorrhoid plication (ligation and mucopexy) without routine anal packing is a simple, safe, and highly effective procedure with minimal pain, low complication rates, short hospital stay, and high patient satisfaction. It can be strongly recommended as a preferred option for grade II–IV hemorrhoids.

### *Declaration by Authors*

**Ethical Approval:** Approved

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**Source of Funding:** None

**Conflict of Interest:** The authors declare no conflict of interest.

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