



COST EFFECTIVE HEMORRHOIDOPEXY - OUR EXPERIENCE

KEYWORDS

hemorrhoidal disease, stapled hemorrhoidopexy, Milligan-Morgan open hemorrhoidectomy, Ferguson's closed hemorrhoidectomy, HAL-RAR procedure, mucopexy.

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ABSTRACT *Objective : To evaluate the clinical outcome of our patients who underwent hemorrhoidopexy without stapler due to hemorrhoidal disease, and discuss in accompaniment with the literature.*

Materials and Methods : The patients, who were diagnosed with 3rd and 4th degree hemorrhoidal disease and underwent hemorrhoidopexy without stapler between January 2014 and October 2014 were included. They were evaluated for postoperative morbidity, analgesic requirement, and recurrence.

Results : Sixty percent were males and the mean age was 42 (range 24-60) years. The mean operative time was 60 (40-80) min. The mean parenteral analgesic doses during the first 36 h were 3. All patients received oral analgesics alone after 24 h. No significant postoperative morbidity was observed. The mean in-patient hospital stay was 2 (1-3) days. Patients were followed-up for 12 (range, 7-18) months. Two patients complained of bleeding on the first two postoperative periods. One patient complained of pain and one patient complained of tenesmus in the followup period. No recurrence of hemorrhoids was seen.

Conclusion : The patients can return to their daily activities early with hemorrhoidopexy because of less pain and quick recovery period. We consider that appropriate patient selection is important in the success of this method. Without stapler we are attaining the positive results similar to that of stapled hemorrhoidopexy procedure. And it is very much cost effective as compared to stapled hemorrhoidopexy.

Introduction

Hemorrhoidal disease is a disease affecting social life negatively and found in approximately 4-20% of the population. A lot of methods such as plastic band ligation, sclerotherapy, surgical hemorrhoidectomy (Milligan-Morgan, Ferguson etc.), and stapled hemorrhoidopexy are used in its treatment¹.

Most symptomatic first- and second-degree hemorrhoids are successfully treated with a high-fiber diet supplemented with bulking agents. Surgical hemorrhoidopexy is reserved for prolapsing third- and fourth-degree hemorrhoids. It usually cures hemorrhoids, but excision of prolapsed hemorrhoids with conventional techniques (Milligan-Morgan open hemorrhoidectomy, Ferguson's closed hemorrhoidectomy) is a painful procedure. Patients experience postoperative pain because of the wide external wounds in the sensitive anoderm. Considerable postoperative nursing care is needed, with a convalescence of at least 1 month.

Hemorrhoidopexy is a novel approach for the treatment of prolapsed hemorrhoids and external mucosal prolapse. This technique involves ligation of the vascular pedicle of hemorrhoidal cushion, and mucopexy is performed involving mucosa and sub-mucosa (plication of the mucosa and sub-mucosa will be done 4cm above the dentate line, thus external prolapse will be repositioned) in the insensitive area above the dentate line, resulting in reduction of mucosal prolapse. This interrupts blood flow from the branches of the superior hemorrhoidal artery, thereby re-

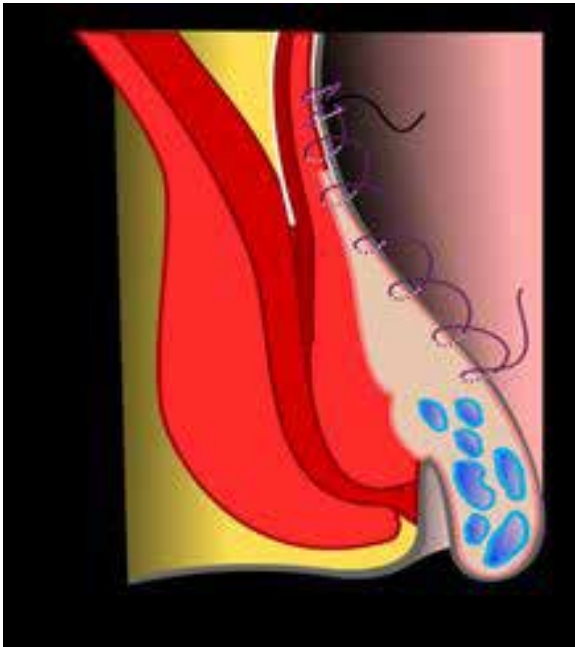
ducing vascular congestion. This procedure does not involve excision of hemorrhoidal cushions and so optimal continence is maintained allowing in reduced postoperative pain, early recovery, and shorter hospital stay.

Materials and Methods

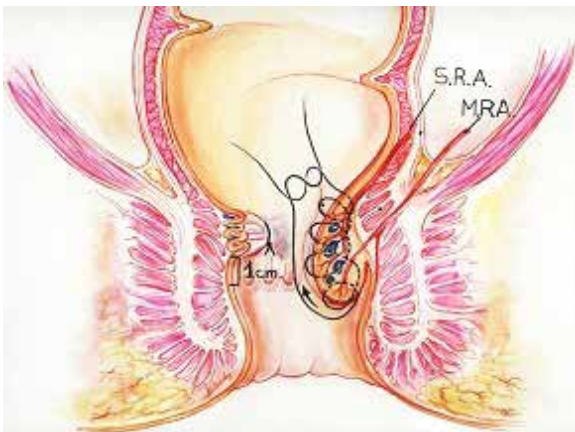
The study sample comprised of fifteen patients with symptomatic third and fourth degree hemorrhoids and circumferential mucosal prolapse, who underwent hemorrhoidopexy in the Upgraded Department of General Surgery at Osmania General Hospital, Hyderabad, from January 2014 to October 2014. The patients, who have a history of clotting disorder, inflammatory bowel disease, diabetes, perianal fistula, anal fissure, abscess, and previous colorectal cancer, were excluded from the study. All data were prospectively collected and retrospectively examined. The patients were checked at the postoperative 1st, 4th, 12th days and 6th month. With preoperative bowel preparation and with consent about the operative technique, patients were taken for surgery and operations were carried out under spinal anesthesia. Operations were performed with open proctoscope and 2.0 VICRYL with 30mm needle round body, in the high lithotomy position making gentle stretch at the anus. After inserting the open proctoscope, the position of the hemorrhoids is identified. Finger is inserted in the anal canal to feel the pulsations. The vascular pedicle is ligated with 2.0 VICRYL, then a stitch is taken in mucosa and sub-mucosa as far as possible from the dentate line at least 4cm above the dentate line. Then it is sutured downwards upto the dentate line and plicated with the uppermost stitch. So the prolapse is repositioned.

Lateral internal anal sphincterotomy was added to all the patients along with hemorrhoidopexy in the present study.

rhoidal cushions which were managed with pressure tamponade. No recurrence of hemorrhoids was seen.



1 (fig) First stich 4 to 5 cms above the Anoderm and fixed ,continuous plication stitches up to Anoderm.



2 fig Plication is fixed to first stich.

Results

In our 15 patients, 9 (60%) patients were males and 6 (40%) were females. The mean age was 42 years (range 24-60years). Patient complaints at the time of admission were bleeding, swelling, pruritus, pain and constipation. There are 7 cases of 3rd degree hemorrhoids and 8 cases of 4th degree hemorrhoids along with mucosal prolapse. All the patients were operated under spinal anaesthesia. The mean operative time was 60 (40-80) min. The mean parenteral analgesic doses during the first 36 h were 3. All patients received oral analgesics alone after 24 h. No significant postoperative morbidity was observed. The mean in-patient hospital stay was 2 (1-3) days. Patients were followed-up for 12 (range 7-18) months. Post operative bleeding was seen in two patients in the first two post operative days due to venous congestion over the hemor-



FIG(3) 4 Degree hemorrhoids(pre -opt)



FIG(4) post opt pic

Patient Characteristics	Number	%
Mean age (in years)	42	
Male	9	60
Female	6	40
Grade 3 hemorrhoids	7	47
Grade 4 hemorrhoids	8	53

Complaints at admission	Number	%
Bleeding	13	87
Swelling	10	67
Itching	6	40
Pain	5	33
Constipation	3	20

Postoperative complications	Number	%
Bleeding	2	13
Pain	1	7
Tenesmus	1	7
Recurrence	0	0

Discussion

Pain after hemorrhoidectomy has been the main reason for patients to refuse surgery, whereas surgeons have a major concern for controlling postoperative pain. Multiple complementary treatments have been proposed to reduce postoperative pain, including the use of different surgical instruments (diathermy, scalpel, bipolar, harmonic), local or systemic injection of analgesic, antibiotics or associated procedures such as lateral internal sphincterotomy to reduce postoperative sphincter spasm. All these treatments do not address the fact that the sensitive anal mucosa is severely traumatised during the removal of hemorrhoids. The method of stapled hemorrhoidopexy, described by Longo, does not damage the anal mucosa, which is lifted up in the anal canal by resection of a variable ring of insensitive mucosa above the dentate line². The procedure of hemorrhoidopexy in the present study involves only the plication of prolapsed anal mucosa above the dentate line without resection.

The results of this study indicate that post operative morbidity was minimal. In the literature complication rates related to Longo's technique were reported as 6.4-31%^{3,4}. Complications of stapled hemorrhoidopexy include submucosal hematoma, bleeding, long term rectal pain, separation of stapler line, rectal perforation, sepsis and rectovaginal fistula^{5,6,7}. All these complications are not seen in the present study and also the cost associated with stapler is avoided.

One of the most frequently associated complications associated with hemorrhoidopexy is bleeding, due to venous congestion and is seen most commonly on the first and second postoperative days. In the present study bleeding was reported in two patients(13%). We observed that no major intervention was needed for any of these bleedings. The incidence of early hemorrhage for stapled hemorrhoidopexy^{8,9} is not significantly lower than any conventional operation. Paolo Boccasanta et al.¹⁰ have reported early and late bleeding in 12.5% of patients who underwent stapled hemorrhoidopexy and majority of these patients required interventions to control bleeding, like oversewing stitches.

There is lesser postoperative pain associated with this procedure because anal region that is sensitive is not touched, as plication is done above the dentate line. The lesser pain associated with this procedure parallels stapled hemorrhoidopexy^{11,12,13,14,15}. In the literature various rates related to pain between 4 and 7.5% were reported. In the present study pain is reported in 7% of the patients.

Anal stenosis is one of hemorrhoidopexy's complications been afraid of. Therefore we added lateral internal anal sphincterotomy as a routine for all the patients undergoing hemorrhoidopexy. Anal stenosis associated with stapled hemorrhoidopexy in the literature was around 2%^{11,12,16}. Anal stenosis was reported in none of our cases in the followup period.

One of the defecation disorders seen after hemorrhoidopexy is tenesmus^{9,16,17}. In a study, Ortiz et al. determined tenesmus at the rate of 40%. In the present study only one patient presented with tenesmus in the followup period(7%).

No recurrences were reported in the present study. Therefore hemorrhoidopexy, having all the advantages of stapler hemorrhoidopexy, is more cost effective than the latter. It also has the advantages of lesser bleeding and lesser recurrence. The patients can return to their daily activity early because of lesser pain and quicker recovery period. We consider that appropriate patient selection is important in the success of this method.

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