



Original Article

Promising new technique for treatment of hemorrhoids- Our experience.

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Abstract

Background: Stapled Hemorrhoidopexy (SH) is a new technique with less pain than conventional hemorrhoidectomy and can be used in the management of second, third and fourth degree hemorrhoidal disease.

Objective: To show the effectiveness of Stapled Hemorrhoidopexy as a treatment option of symptomatic hemorrhoid.

Methods: This is an observational study. The medical records of 72 patients who had undergone Stapled Hemorrhoidopexy for symptomatic hemorrhoidal disease from July 2011 to June 2013 in BIRDEM General Hospital under a same surgeon were evaluated. Data regarding postoperative pain, early and late postoperative outcome were recorded. Patient's satisfaction assessed at 18 months follow up.

Results: The study included 72 patients (50 men, 22 women) between 22 - 74 years of age (median age 39 years). The operating time was around 35 minutes. The median hospital stay was 40 hours (11-72 hours). Early complications were fecal urgency (13.8%), urinary retention (22%), and rectal bleeding (2.77%). Late complications were pruritus ani (12.5%), thrombosed external hemorrhoids (1.38%), staple line stenosis (1.38%), recurrent hemorrhoid (2.77%), anal fissure (2.77%), and persistent mucous discharge (5.55%). The recurrence rate was 2.77% at 18 months follow up.

Conclusion: Stapled hemorrhoidopexy can be safely performed with low recurrence and complication rates while offering a relatively painless postoperative period for the patient.

Key words: Hemorrhoid, Stapled Hemorrhoidopexy, Hemorrhoidectomy.

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Introduction

Hemorrhoids is a common problem that often requires surgical management. Milligan Morgan haemorrhoidectomy (1937) and Ferguson closed hemorrhoidectomy (1959) are the two most frequently performed established technique of hamorrhoidectomy while causing similar postoperative pain¹. In 1998, Italian surgeon Antonio Longo described the "procedure for prolapse and hemorrhoids" (PPH)², which we prefer to call stapled hemorrhoidopexy(SH). This procedure combines the favorable aspects of both fixative and excisional techniques. It corrects the anatomic and physiologic abnormalities of symptomatic, prolapsing hemorrhoids without leaving painful external wounds. The stapled hemorrhoidopexy makes use of the theory of fixation by returning the vascular cushions to their anatomic location high in the anal canal.

Stapled hemorrhoidopexy for hemorrhoidal disease has become popular among surgeons and patients because of the absence of painful perianal wounds and comparable short-term results with standard Milligan Morgan hemorrhoidectomy^{3,4}. There are limited data about the long-term postoperative results of SH⁵.

Materials and Methods

This observational study was done in BIRDEM General Hospital during July 2011 to June 2013. Total 72 patients were treated with stapled haemorrhoidopexy during this period by a single surgeon. Data regarding short term post operative outcome up to 2 weeks, residual symptoms and recurrence at 6, 12 and 18 months were collected. Follow up was for 18 months. Patient's informed consent was taken for collection of postoperative data.

Results: The study included 72 patients. There were 50 men and 22 women with a median age of 39 years (22-74years). Clinical features are shown on the Table 1. The median operating time was 35 minutes. The median hospital stay was 40 hours (11-72 hours). Postoperative outcomes were defined as short term (during the first two postoperative week) and long term (after 14 postoperative day to 18 months).

Short-term postoperative outcome: All patients required postoperative analgesia with NSAIDS during the first 24 hours, and 25(34.7%) of these patients needed additional analgesia with NSAIDs upto 3rd POD. Visual Analogue Score (VAS) assessed pain. VAS scores on postoperative days 1, 7, and 14 are shown in Table 2.

Complications during the first 24 hours were fecal urgency (13.8%, n= 10), urinary retention (22%, n= 16), and rectal bleeding (2.7%, n=2). One of the two patients with rectal bleeding was managed with hemostatic sutures in the operating room under general anesthesia. The bleeding stopped with pressure and oral antifibrinolytic drugs in the other patient. All patients with postoperative urinary reten-

tion required urinary catheterization.

Long-term postoperative outcome showed most frequent complaint was pruritus ani (12.5%, n=9), staple line stenosis (1.38%, n=1), and anal fissure (2.77%, n=2). Recurrent hemorrhoid developed in 2 (2.77%) patients within 6 & 10 months after the operation. Thrombosed external hemorrhoids were seen in 1(1.38%) of these patients. The thrombus was removed in that patient under local anaesthesia. 4 patients (5.5%) complained of persistence of mucous discharge at 6 months of follow up, it resolved spontaneously after one year when the external component of hemorrhoid is shrunken.

The most common late complication was pruritus ani, seen in 9 patients (12.5%). Anti inflammatory topical agents resolved the symptoms in 8 patients. Only one patient complained from persistent itching, but no underlying pathology was found. Anal fissure was recognized in two patients at 4 and 12 months after the operation, and they were subjected to lateral internal sphincterotomy.

Stapler line stenosis occurred in one patient 1(1.38%) and was recognized 10 weeks after the operation. Patients were treated with digital dilatation in the outpatient clinics. Two patients (2.77%) had recurrence of the hemorrhoidal disease, they were treated conservatively with oral hesperidines, but none required surgery.

Patients were asked if they were satisfied with the stapled haemorrhoidopexy procedure in their 18 month follow up. The patients were asked to choose one of the following degrees of satisfaction: poor, moderate or good. Patient satisfaction is shown in Table 4.

Table 1: Grade of hemorrhoid and clinical features
Number of patient

	Number of patient (N=72)	Percentage (%)
Sex		
Male	50	69.4%
Female	22	30.5%
Grade of hemorrhoidal dise		
Grade 2	44	61%
Grade 3	16	22%
Grade 4	12	16%
Clinical Presentation		
Skin tags	3	4%
Bleeding	72	100%
Anal pain	15	20.8%
Pruritus ani	68	94.4%
Constipation	53	73.6%
Mucous discharge	49	68%

Table 2: Severity of pain in early post operative period

Post operative day (POD)	Mild pain* Number of patient (%)	Moderate pain* Number of patient (%)	Severe pain* Number of patient (%)	Pain Free
1 st POD	14(19.4%)	49(68%)	9(12.5%)	
7 th POD	12(16.6%)	3(4.1%)	1(1.38%)	56(77.7%)
14 th POD	5 (6.9%)	2 (2.7%)	0 (0%)	65(90%)

*mild (0-3), moderate (4-6), and severe (7-10), as per Visual Analogue Score(VAS)

Table 3: Clinical outcome of patients

Outcome	Short term	Percentage %	Long term	Percentage %
Fecal urgency	10	13.8%		
Urinary retention	16	22%		
Rectal bleeding	2	2.77%		
Pruritus ani			9	12.5%
Thrombosed external hemorrhoids			1	1.38%
Staple line stenosis			1	1.38%
Anal fissure			2	2.77%
Recurrence of haemorrhoids			2	2.77%
Mucous discharge			4	5.55%

Table 4: Patient satisfaction at 18 month follow up

Patient satisfaction	No of patient	Percentage(%)
Good	60	83%
Moderate	9	12.5%
Poor	3	4.16%

Discussion

Excisional haemorrhoidectomy (Milligan Morgan and Ferguson) has long been used as effective treatment for symptomatic haemorrhoids, specially 3rd and 4th degree prolapsing haemorrhoids. The main drawback of these surgeries is significant postoperative pain, which is due to involvement of sensitive anoderm in the procedure⁶. Stapled haemorrhoidopexy is a newer technique that leaves the anoderm uninterrupted, thus reduces the chance of pain. Several randomized control trial has shown stapled haemorrhoidopexy to be equally effective as Milligan Morgan procedure in terms of symptom control^{3,4}. In our series we selected all patient during certain time frame done by a single surgeon, because the success of the procedure is highly operator dependant and technique vary from surgeon to surgeon. Our series shows all patients had per rectal bleeding(100%), and majority of them also had pruritus(94%), mucous discharge(68%) and constipation(73%) prior to surgery. After stapled Haemorrhoidopexy only two patient had per rectal bleeding(2.7%) in the follow up, other symptom like puritus(12.5%) and mucous discharge(5.5%) were also well controlled. 1 patient(1.38%) had constipation due to staple line stenosis at follow up that responded well to digital dilatation.

Special emphasis was given in this study about documentation of pain, because logic behind popularization of the newer more expensive stapled haemorrhoidopexy over excisional haemorrhoidectomy was to achieve a pain free postoperative period. Post operative pain was measured using Visual Analogue Score (VAS). Scoring is done from 1-10. Mild pain scoring 1-3, moderate pain 4-6, severe pain 7-10. Scoring was done at 1st POD, 7th POD and 14th POD. Theoretically SH is a pain free procedure², but practically there were some degree of dull aching pain in the early post operative days, but severity was less with less analgesic requirement and early return to usual activity. In 1st POD only 9(12.5%) patient had severe pain requiring injectable NSAIDs, 49(68%) patient had moderate pain and 14(19.4%) had only mild pain and was managed with oral NSAIDs. On 7th POD 56(77.7%) patient were pain free and returned to their usual work habit. Only 1(1.38%) patient experienced severe pain at day 7, 3(4.1%) patient had moderate pain and 12(16.6%) patient had mild pain. All patient having VAS score >3 were given oral NSAIDs. At day 14 follow up 65(90%) patient were pain free. No patient had severe pain, only 2(2.77%) patient had moderate pain and 5(6.9%) patient mentioned mild pain when asked for. 2 patient having moderate pain were counseled and oral paracetamol was prescribed to be taken if necessary.

Fourth-degree hemorrhoids can be especially challenging, and inadequate reduction of the hemorrhoidal cushions may be a reason for future recurrence, persistent mucous discharge, thrombosed external hemorrhoid and pruritus. In our series 2

patient developed recurrence. The possible reason of recurrence as shown in other study is procedural defect like escaping some portion while taking purse sting in the anal mucosa⁷. In 3rd and 4th degree hemorrhoids, it takes some time for dilated vessels below stapler line to shrink^{8,9}. In our study 9 patient had pruritus, 4 patient had persistent mucous discharge after the procedure, which was due to these residual external component below stapler line. These symptoms resolved with time and conservative treatment. Additional interventions such as excision of skin tags and removal of thrombosed hemorrhoids helps make long term results better, with decreasing persistent skin tags and a lower rate of thrombosed external hemorrhoids¹⁰. but additional perianal procedure also increases the post operative pain.

Long term follow up results are good in terms of control of symptoms, residual symptoms, and overall patient satisfaction in 18 month. 60 patient(83%) were happy with there experience of stapled haemorrhoidopexy, 9 patient(12.5%) were moderately satisfied, 3 patient (4.1%) commented that the procedure was not as pain free as they expected and was a bit expensive.

Apart from being less painful and good control of symptom many patients were happy because they need not to sit for Seitz bath after the procedure, which is often trouble some for busy working people and can be challenging for elderly patient with hip and knee problems.

Conclusion

Stapled haemorrhoidopexy is a safe and effective treatment option for 2nd, 3rd, and selective 4th degree haemorrhoids, with good control of symptoms, and less post operative pain. It is well tolerated by patient and long term follow up results are promising.

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