

INITIAL EXPERIENCE WITH STAPLED HAEMORRHOIDECTOMY FOR TREATMENT OF SYMPTOMATIC HAEMORRHOIDS

Nazeem Afridi, Sadia Nazeem, Adil Hussain, Mazhar Khan

Department of Surgery
Kuwait Teaching Hospital and Hayatabad Medical Complex, Peshawar - Pakistan

ABSTRACT

Objectives: To describe initial experience with stapled haemorrhoidectomy as a procedure for symptomatic haemorrhoids.

Methodology: This descriptive study was conducted at department of surgery, Kuwait Teaching Hospital Peshawar from September 2008 to August 2009. All patients with hemorrhoids who failed to respond to conservative methods and underwent stapled haemorrhoidectomy after informed consent were included in the study. The demographics, presenting complaints, degree of piles, operating time and problems, postoperative pain and any other complications were recorded on a proforma. Patients were followed up at 1 week, 3 weeks and then 6- monthly for up to 18- months.

Results: The mean age of the sample of 34 patients was 48.7 ± 9.64 years. Five(14.7%) patients had bleeding from staple line, requiring suturing in two and packing in rest of the three(8.82%). Postoperative pain was recorded using visual analogue scale. Thirty one(91%) patients were discharged home after overnight stay. Twenty two(64.7%) patients returned to their routine activities within a week. Nine(26.4%) patients took up to two weeks to return to their daily routine. One(2.9%) patient had residual haemorrhoid requiring band ligation at 3 weeks. Eleven(32.35%) patients had residual skin tags without any other symptoms. None of the patients had recurrence, anal stenosis, incontinence, fecal urgency or sepsis.

Conclusion: The results of our study revealed that only a few of the patients after stapled hemorrhoidectomy had bleeding from staple line while majority were discharged home after overnight stay and returned to their routine activities within a week.

Key Words: Stapled Haemorrhoidectomy, Haemorrhoids.

INTRODUCTION

Traditionally Milligan Morgan haemorrhoidectomy has been the standard procedure for the treatment of third and 4th degree hemorrhoids. Although the procedure is excellent in terms of control of symptoms with low complication rate but is associated with severe postoperative pain lasting for upto 4-weeks¹⁻³.

Several modifications have been adopted like combining it with lateral sphincterotomy, anal dilatation and chemical sphincterotomy, none entirely satisfactory^{4,5}.

Introduction of procedure for prolapsed hemorrhoids (PPH) or stapled haemorrhoidectomy has gained popularity over the last decade due to less postoperative discomfort. It was introduced by

Longo in 1998⁶. The procedure involves placing a purse string suture about 4cm above the dentate line into mucosa and submucosa after anal dilatation with a circular dilator. A circular stapling device is introduced through the anus into the purse string suture which is tied over its shaft. Activating and firing the device results in excision of a circular strip of mucosa and submucosa removing the redundant mucosa and interrupting the branches of superior haemorrhoidal artery. The device staples the cut ends restoring continuity. This avoids multiple excisions over the sensitive anoderm. Several authors have shown post-operative pain to be much less than with conventional technique^{1, 3, 7, 8}. Several studies have suggested that stapled haemorrhoidectomy can be safely performed as a day case procedure¹⁰⁻¹².

Randomized controlled trials^{5,7-9} have shown a decrease in postoperative pain, analgesic requirement, operating time, short recovery time and earlier return to normal activities. The complications and recurrence rates are reported to be similar^{2,5,8,9} while some studies have reported chronic postoperative pain, recurrent prolapse and anal stenosis^{2, 5}. Controversy exists as to overall safety and acceptability of stapled haemorrhoidectomy.

The purpose of this study was to report initial experience with stapled haemorrhoidectomy and to assess its effectiveness to control symptoms as well as complication rate.

METHODOLOGY

This descriptive study was conducted at department of surgery, Kuwait Teaching Hospital Peshawar from September 2008 to August 2009. underwent stapled haemorrhoidectomy. A proforma was designed to record demographics, presenting complaints, degree of piles, operating time and problems, postoperative pain and any complications. Patients with 3rd and 4th degree hemorrhoids and some with late 2nd degree hemorrhoids who failed to respond to conservative methods were included in the study.

Patients with co-existing anal fissure, fistula or abscess were excluded from the study. Pre-operative evaluation included a complete history and physical examination, Digital rectal examination and proctoscopy. All patients above forty years of age or with altered bowels were further evaluated with flexible sigmoidoscopy or colonoscopy. Written informed consent was taken. Pre-operative antibiotic prophylaxis included 1.2gm co-amoxiclav. All patients were operated under general anesthesia. Stapled haemorrhoidectomy was performed by the two consultant surgeons of the team. Operating time and any complications were recorded. Pain was recorded using visual analogue scale. Oral diclofenac sodium and Paracetamol were used as regular analgesia. Ketoprofen was used as rescue analgesia. Regular isphagula husk was recommended.

Patients were discharged home when comfortable.

Patients were followed up at 1 week, 3 weeks and then 6- monthly for up to 18- months.

The data was analyzed by using SPSS v.11.

RESULTS

A total of 34 patients including 10 males and 24 females underwent stapled haemorrhoidectomy. The mean age of the sample was 48.7±9.64 years. All of them presented with bleeding per rectum 100% (n= 34) , perianal lumps 94 % (n=32), discharge and itching 38.23 % (n=13) , constipation 26.4 % (n=9) , altered bowels 8.82 % (n= 3).

Sixteen patients (47 %) had flexible sigmoidoscopy.

Operating time varied between 20 minutes to 45 minutes (Mean 30 min). Five patients had bleeding requiring suturing in two (14.7 %) and packing in rest of the three (8.82%).

Postoperative pain was recorded using visual analogue scale (Table 1). Oral diclofenac sodium and paracetamol were used for pain relief. Ketorolac was used for severe pain only.

Oral analgesia was enough in majority of patients- 91% (n=31) .Three patient (8.82 %) had severe pain requiring parenteral analgesia. Patients on oral analgesia stopped taking any analgesics after 3-5 days. While two patients continued to require analgesia for up to 4 weeks. These two patients (5.88 %) developed swollen anal skin tags which took about 2-4 weeks to settle completely. One of the patients (2.9 %) had severe pain postoperatively due to low staple line encroaching dentate line. This took up to 12 weeks to settle. Thirty one patients (91 %) were discharged home after overnight stay. Three patients (8.82 %) required another day stay in the hospital. Twenty two patients (64.7%) returned to their routine activities within a week. Nine patients (26.4 %) took up to 2 weeks to return to their daily routine.

Table 1: Postoperative pain using visual analogue scale (VAS)

Pain	Day 1	Day 2	1 week	2-4 week	8-12 week
1-5	26	11	7	2	nil
6-8	2	2	2	1	1
9-10	1	1	1	1	nil

Follow up was carried out at 1 week, 3 weeks then 6 monthly for up to 18 months. One patient (2.9%) had residual haemorrhoid requiring band ligation at 3 weeks. Eleven patients (32.35%) had residual skin tags without any other symptoms. None of the patients had recurrence of symptoms, anal stenosis, fecal urgency, or sepsis.

DISCUSSION

Conventional hemorrhoidectomy has been associated with fear due to pain and several modifications have been tried to reduce postoperative pain.

The rationale of stapled hemorrhoidectomy is that hemorrhoids are a result of fragmentation of Parks ligament. This results in submucosal tissue that lines anal canal slide downwards. This prolapse obstructs venous outflow hence causing the clinical entity known as hemorrhoids¹³. Stapled hemorrhoidectomy excises this ring of mucosa and submucosa thereby reducing the mucosal prolapse. Thus the operation is also called stapled mucosectomy, circumferential mucosectomy or anopexy¹⁴⁻¹⁹.

Several randomized trials comparing stapled hemorrhoidectomy with traditional hemorrhoidectomy were developed to know the efficacy and safety of the technique^{2, 5, 7-9}.

A systematic review conducted by Sutherland et al¹² included seven prospective randomized trials comparing stapled hemorrhoidectomy with conventional hemorrhoidectomy found strong evidence in favour of the stapled procedure considering pain, length of hospital stay, analgesic consumption and return to normal activities.

In our study majority of patients (91%) were discharged home after one day. This seems to be in agreement with a multicentre study⁹ in which 90.3% of patients were discharged home on first postoperative day. Majority of patients in our series (64.7%) returned to their normal activities within one week which is comparable to other studies^{9, 20, 21}.

Operating time (mean 30-min) and perioperative problems were comparable to other studies²⁰⁻²². Five patients (14.7%) had bleeding from the staple line requiring suturing while in three patients (8.82%) it was controlled with packing for 5-10 minutes.

In majority of patients (91%) oral paracetamol and diclofenac sodium were enough to achieve pain control and analgesia was not required beyond 3-5 days.

Two patients (5.88%) developed swollen

skin tags, one requiring excision and other settled conservatively. One of the patients had severe pain. On EUA it was found that the staple line was too low encroaching the dentate line. This patient settled on oral diclofenac sodium and paracetamol over 12 weeks. This complication has also been reported by others^{20, 23, 24}. Though this patient was number 17 on the learning curve but it is considered a technical problem.

Mean follow-up was 9-months. One patient had residual prolapse at 3 weeks successfully treated with rubber band ligation. Other authors have similar experience^{20, 21}. In majority of patients skin tags regressed during follow up but eleven patients with 4th degree piles had residual skin tags without any other symptoms. As the patients were counseled well about this beforehand they were satisfied. This concern has been raised by some other studies as well²⁴.

None of the patients had pelvic sepsis, rectal stenosis, fecal urgency or recurrence as reported by some studies²⁰⁻²². Recurrent prolapse has been reported in literature^{16, 20} but a shorter follow up in our series may be a factor for no recurrence.

CONCLUSION

The results of our study revealed that only a few of the patients after stapled hemorrhoidectomy had bleeding from staple line while majority were discharged home after overnight stay and returned to their routine activities within a week.

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Address for Correspondence:**Dr. Nazeem Afridi**

Associate Professor

Department of Surgery,

Kuwait Teaching Hospital, Peshawar-Pakistan