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COMPLICATIONS OF STAPLED HAEMORRHOIDECTOMY

Jamshed Alam[1], Nisar Ahmed[1], Shahid Khattak[2], Javeria Iqbal[1], Mohammad Zarin[1]

[1]Department of Surgery, Khyber Girls Medical College, Peshawar - Pakistan

[2]Department of Surgery, Fatima Memorial College of Medicine and Dentistry, Lahore - Pakistan

ABSTRACT

Objectives: This study was conducted to determine the frequency of complications of stapled haemorrhoidectomy for symptomatic haemorrhoids.

Material and Methods: This retrospective study was conducted in Surgical "D" unit, Khyber Teaching Hospital, Peshawar from March, 2006 to February, 2008. A total of sixty patients were included in this study. All patients were admitted through OPD with complaints of bleeding per rectum and/or something coming out of the anus, painful defecation, constipation and pruritis ani for variable periods of time. They were diagnosed to have grade II or grade III haemorrhoids. Diagnosis was made by proctoscopy. Indications for operation were the same as for conventional open haemorrhoidectomy. All patients underwent stapled haemorrhoidectomy electively after full preparation and counselling. Complications were divided into early and late, occurring within or later than 7 days respectively.

Results: There were no perioperative complications. Out of 60 patients, 9 (15%) patients experienced some sort of complication either early or late. Amongst the early complications, 1(1.6%) patient had major bleeding, 2(3.33%) patients had minor bleeding, 3(5%) patients had moderate anal pain (requiring analgesia), 1 (1.6%) patient had urinary retention. Amongst the late complications, 1(1.6%) patient had chronic anal pain, 1(1.6%) patient had anal fissure, 2(3.33%) patients presented with recurrence at the 4th month of follow up, and 1(1.6%) patient had persistent symptoms.

Conclusion: Stapled haemorrhoidectomy is one of the most effective treatment for symptomatic haemorrhoidal disease.

Key words: Stapled, Haemorrhoidectomy, Bleeding, Complications.

INTRODUCTION

Stapled haemorrhoidectomy was described in 1993 for the treatment of symptomatic haemorrhoidal disease.[1] Open haemorrhoidectomy has been accepted worldwide as the best choice of treatment for symptomatic haemorrhoidal disease and is safe and effective but is associated with postoperative pain, occasional long hospitalization and anal stenosis.[2] In recent times, stapled haemorrhoidectomy has been a major advance in the treatment of symptomatic haemorrhoids, because of decreased postoperative pain and shorter recovery time.[3]

Longo originally described a new surgical technique for treatment of haemorrhoidal disease using a circular stapler normally used for low rectal anastomosis, the long term efficacy of which is still uncertain.[3] Since its first description, several prospective randomized studies comparing stapled haemorrhoidectomy with conventional open haemorrhoidectomy, confirmed that stapled haemorrhoidectomy was safe, effective and associated with less postoperative pain, shorter operative time and greater patient satisfaction.[8] Even though the technique is relatively straight forward, only strict adherence to its principles will avoid complications.[9-12]

The purpose of this retrospective study is to analyze the complications of stapled haemorrhoidectomy for symptomatic haemorrhoidal disease in our experience.

Address for Correspondence:

Dr. Jamshed Alam

Senior Registrar, Deptt of Surgery

Khyber Girls Medical College, Peshawar

Contact: 0333-9119604

MATERIAL AND METHODS

This retrospective study was conducted in surgical "D" unit, Khyber Teaching Hospital, Peshawar from March 2006 to February, 2008. All patients were diagnosed on proctoscopy. They were admitted to Surgical "D" ward, through OPD. After initial preparation, they were operated under general or spinal anesthesia. Stapled haemorrhoidectomy was performed in all cases. Patients were discharged after 2-3 days, and followed at 1-2 months interval for 6 months and complications noted.

Complications were considered early if these occurred during the first week and late if these occurred after the 7th post operative day, and were dealt with accordingly. Inclusion criteria was patients with grade II and grade III haemorrhoids. Patients with anal tag and/or fissure in addition to haemorrhoids were excluded from this study.

RESULTS

A total of 60 patients underwent stapled haemorrhoidectomy. Twenty three (33.33%) were female and Thirty seven (66.66%) patients were male. Four (6.66%) cases included in this study, were suffering from recurrence after open haemorrhoidectomy. Indications for haemorrhoidectomy were the same as for open haemorrhoidectomy i.e grade II and III haemorrhoids. Patients had symptoms for variable periods of time i.e. months to years. Patients ranged from 23-69 years of age. Mean age was 43 $\pm$ 2 SD years.

All patients presented with bleeding per rectum. Some of the patients presented with other complaints also as shown in Table 1.

Complications observed are shown in Table 2.

Table 1: Presenting complaints

Clinical features	No. of patients (%)
Bleeding per rectum	60 (100%)
Something coming out of the anus	26 (43.33%)
Constipation	23 (38.33%)
Pruritis ani	7 (11.66%)
Painful defecation	4 (6.66%)

Table 2: Complications of the procedure

Complications	No. of patients (%)
Early	
Major bleeding	1 (1.6%)
Minor bleeding	2 (3.33%)
Moderate pain	3 (5%)
Urinary retention	1 (1.6%)
Late	
Chronic anal pain	1 (1.6%)
Anal fissure	1 (1.6%)
Recurrence	2 (3.33%)
Persistence of symptoms	1 (1.6%)

In order to rectify the complications, following measures were taken. For major bleeding, the patients were shifted to O.T and anesthetized and bleeding controlled. Minor bleeding was treated conservatively and patients were observed. For pain, injectable analgesia was used. For urinary retention, the patient was catheterized for 2-4 hours.

Chronic anal pain was treated with oral analgesia with satisfactory results. Anal fissure was treated conservatively with Glyceryl trinitrate cream and laxatives. Two patients had recurrence, one at 3 months follow up and another at 4 months. Both were advised open haemorrhoidectomy. The former underwent open haemorrhoidectomy with satisfactory results while the second one refused operation. One patient with persistence of symptoms (pruritis ani) was treated conservatively and reassured at 2nd month follow up but did not return for further visits.

DISCUSSION

Stapled haemorrhoidectomy has been thoroughly studied throughout the world with nearly uniform results regarding its safety profile and patient satisfaction. Complications reported with this procedure are hemorrhage, rectal perforation, submucosal hematoma, acute and chronic anal pain.[2,10,11,12,18]

Hemorrhage is the most common and troublesome complication. Most of the times bleeding is minor requiring minimal intervention but in occasional cases, severe life threatening hemorrhage can occur due to misplacement of the staple line. The frequency of hemorrhage reported in literature is from 0.6 to 10%.[2,9,10,15,16] A French multicentre study (550 consecutive cases) reported hemorrhage in 1.8% cases.[16] In our study, the frequency of hemorrhage noted was 3%. Two (3.33%) patients had minor bleeding that stopped with anal packing. One (1.6%) patient had major bleeding requiring stitching of the suture line under general anaesthesia. Stapled haemorrhoidectomy appears to be as safe as conventional haemorrhoidal surgical techniques.[13]

The second important complication we observed was post operative pain that required analgesia and it was observed in 5% of the study subjects which is significantly less than the conventional Milligan & Morgan hemorrhoidectomy. The frequency of post operative pain reported in the literature ranges from 4% to 17.5%.[2,4,6,8] In our study, the percentage of patients with chronic pain requiring analgesics beyond two weeks was 1.6%. Two important considerations should be made to reduce the intensity of pain postoperatively. Firstly, the suture line should be at least 3-4 cm above the dentate line and secondly, while placing the suture line, care should be taken not to take the muscularis propria layer of the bowel wall. Inclusion of these layers during mucosectomy results in significant postoperative pain.

Urinary retention, noted in 1.6% of our patients resulted mostly due to pain. Urinary retention requires no more than a single "in and out" catheterization. Frequency of urinary retention reported in the literature is from 0.3% to 20%.[4,5,9,16] The efficacy of stapled haemorrhoidectomy in comparison to conventional techniques could not be determined. This was due to the limited data available, the lack of comparability between the efficacy outcome measures and times used by the studies.[14]

Recurrence after haemorrhoidectomy is a very common phenomenon after conventional Milligan and Morgan haemorrhoidectomy. In our series of cases it was observed only in one subject. In the literature other serious complications have been mentioned such as rectal perforation,[9] fistula formation[9,10] and perianal sepsis.[4,11] None of these complications was observed in our cases.[15,17,18]

CONCLUSION

Stapled haemorrhoidectomy is a safe and effective procedure causing few post operative complications and minimal post operative pain.

REFERENCES

1. Longo A. Pain after stapled haemorrhoidectomy. Lancet 2000; 356-2189-90.
2. Mehigan BJ, Monson JR, Hartley JE, Stapling procedure for haemorrhoids versus Milligan-Morgan haemorr-hoidectomy; randomized controlled trial. Lancet 2000; 355: 782-85.
3. Longo A. Treatment of hemorrhoids disease by reduction of mucosa and hemorrhoidal prolapse with a new circular suturing device: a new procedure, 6th world congress of Endoscopic Surgery. Rome, Italy; Manduzzi, 1998; 777-84.
4. Hetzer FH, Demartines N, Handschin AE, Clavien PA. Stapled vs excision hemorrhoidectomy: long-term results of a prospective randomized trial. Arch surg 2002;137: 337-40.
5. Azeem M, Sohail M, Khan FA, Cheema MA. Experience of Stapled Hemorrhoidectomy operation at Mayo Hospital Pak J Med Health Sci 2007; 1(4): 125-27.
6. Ho YH, Cheong WK, Tsang C, Ho J, Eu KW, Tang CL, et al. Stapled hemorrhoidectomy—cost and effectiveness. Randomized, controlled trial including incontinence scoring, anorectal manometry, and endoanal ultrasound assessments at up to three months. Dis Colon Rectum. Dec 2000; 43(12): 1666-75.
7. Qazi JA, Shah MN. Stapled hemorrhoidectomy / anoplasty: A study at K.V.S.S. Site hospital, Karachi Pak J Surg 2003; 19(1): 9-12.
8. Singer MA, Cintron JR, Fleshman JW. Early experience with stapled hemorrhoidectomy in the United States. Dis Colon Rectum 2002; 45:360-69.
9. Ganio E, Altomare DF, Gabrielli F. Prospective randomized multicenter trial comparing stapled with open haemorrhoidectomy. Br J Surg 2001; 88: 669-74.
10. Pernice LM, Bartalucci B, Bencini L. Early and late (ten years) experience with circular stapler hemorrhoidectomy. Dis Colon Rectum 2001;44: 836-41.
11. Maw A, Eu KW, Seow-Choen F. Retroperitoneal sepsis complicating stapled hemorrhoidectomy: report of a case and review of the literature. Dis Colon Rectum 2002; 45: 826-28.
12. Cheetham MJ, Mortensen NJ, Nystrom PO, Kamm MA, Phillips RK. Persistent pain and faecal urgency after stapled haemorrhoidectomy. Lancet 2000; 356: 730-33.
13. Altomare DF, Rinaldi M, Sallustio PL, Martino P, De Fazio M, Memeo V. Long-term effects of stapled haemorrhoidectomy on internal anal function and sensitivity. *Br J Surg*, 2001; 88: 1487-91.
14. Correa-Rovelo JM, Tellez O, Obregon L, Mirandagomez A, Moran S. Stapled rectal mucosectomy versus closed haemorrhoidectomy. *Dis Colon Rectum* 2002; 45: 1367-75.
15. Au-Yong I, Rowsell M, Hemingway DM. Randomized controlled trial of stapled haemorrhoidectomy versus conventional haemorrhoidectomy, three and a half year follow-up. *Colorectal Disease* 2004; 6: 37-38.
16. Oughriss M, Yver R, Faucheron JL. Complications of stapled haemorrhoidectomy: a French multi centric study. Gastroentrol Clin Biol 2005; 29: 429-33.
17. Athar A, Chawla T, Turab P. stapled haemorrhoidopexy. The Agha Khan University Hospital experience. Saudi J Gastroentrol 2009; 15(3): 163-6.
18. Giordano P, Gravante G, Sorge R, Ovens L, Nastro P. Long-term outcome of stapled haemorrhoidectomy VS conventional haemorrhoidectomy: a meta analysis of randomized controle trial. Arch Surg 2009; 144(3): 266-72.