Stapled Haemorrhoidopexy for Haemorrhoids: A Review of Our Early Experience

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Received: 19 January 2009 / Accepted: 26 December 2011 / Published online: 21 January 2012
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Abstract Haemorrhoids is one of the most common problems seen in surgical OPD. Open haemorrhoidectomy has remained the gold standard for a long time with a high post-operative morbidity. The quest for a better understanding of the pathology of haemorrhoids resulted in the evolvement of stapler haemorrhoidopexy. Our aim is to study the efficacy of stapler haemorrhoidopexy with regards to role of immediate post-operative morbidity. A prospective study of 50 patients ($n=50$) with the second- and third-degree symptomatic haemorrhoids was done. The mean age of the patients was 44.1 years. Fourteen patients had co-morbid conditions. The average duration of the operation was 29 min. Patients with the second-degree haemorrhoids had higher rate of complication. The complication rate was 32%. Three patients had urinary retention. Two patients had minor bleeding, and one patient experienced transient discharge. The mean analgesic requirement was 2.4 tramadol, 50 mg injections. Ten patients had significant post-operative pain. Average length of hospital stay was 2.7 days. There were no symptomatic recurrences till date.

Keywords Haemorrhoids · Stapler haemorrhoidopexy · Post-operative pain

Introduction

Haemorrhoids is one of the most common problems seen in the surgical outpatient department. A variety of different

modalities of treatment—conservative or surgical—have been advocated over the years.

Different surgical modalities such as injection sclerotherapy, cryotherapy, banding and open haemorrhoidectomy have enjoyed varied degrees of popularity in different time spans.

However, open haemorrhoidectomy had remained the gold standard for a long time as far as long-term outcomes/results were concerned.

However, many patients hesitated to undergo this procedure due to the immediate post-operative morbidity of this procedure.

Hence, the quest for a procedure which would give good long-term results, at the same time no pain, bleeding, etc., in the immediate post-operative period, continued.

This quest and a better understanding of the pathology on haemorrhoids resulted in the evolvement of stapler haemorrhoidopexy. It was devised by Longo [1]. It has gained wide acceptance in Europe [2].

Various controlled trials comparing stapled haemorrhoidopexy and conventional haemorrhoidectomy have concluded that stapled haemorrhoidopexy may be associated with less post-operative pain and earlier return to work as compared to conventional haemorrhoidectomy [3–6].

It was unanimously decided to use the term ‘stapled haemorrhoidopexy’ by an international working group of surgeons experienced in the procedure [7]. It approaches the problem of prolapsing haemorrhoids from the standpoint that the prolapse occurs as a result of stretching or disrupting suspensory ligaments. By excising a ring of mucosa in the distal rectum, the haemorrhoidal cushions are lifted back into their anatomical position. The procedure, therefore, reduces or prevents the constriction of the haemorrhoids by the sphincter mechanism during defecation. There is probably also a reduction in blood flow into the cushions. Finally, as the tissues around the scar mature, the staple line becomes fixed and tends to prevent prolapse.

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Patients and Methods

A prospective study of 50 patients ($n=50$) with the second- and third-degree symptomatic haemorrhoids was done between January 2007 and March 2008. They were admitted for surgical treatment of haemorrhoids and were assigned to stapler haemorrhoidopexy. All patients received standardized preoperative care and post-operative analgesic and laxative regimens.

Age range: 20–76 years

Sex

Male: 30

Female: 20

Degree of haemorrhoids: The second and third degrees

Post-operative events

Pain: 10 (48 h)

Bleeding (minor): 2

Discharge: 1

Urinary retention: 3

Faecal incontinence: 0

Pain during defecation: 1

Others: 0

Results

The mean age of the patients in our group was 44.1 years (range 20–76 years). Of the 50 patients included in our group, 14 patients had the presence of co-morbid conditions such as type 2 diabetes mellitus and hypertension. The second-degree haemorrhoid was present in 20 patients and the remaining 30 patients had the third-degree haemorrhoid. There was no significant increase in the rate of complications in those with co-morbid conditions as compared to those without co-morbid conditions ($p=0.33$). The patient group with the second-degree haemorrhoid had a slightly higher rate of complication as compared to the third-degree patients. The average length of the operation was 29 min (range 20–43 min). As per various studies, the complication rates after stapled haemorrhoidopexy range between 6 and 31% [5–9]. In our study, the complication rate was 32%. No major bleeding or anastomotic disruption occurred. Three patients (6%) had urinary retention. Shalaby and Desoky [10] reported a similar rate of 7% in their study, but it is higher than the 1.5% rate reported by Ravo et al [11]. The cause of post-operative urinary retention is uncertain [12]. Two patients (4%) had minor bleeding. Similar rates have been reported in the literature with a range between 1 and 4% [8, 10]. One patient (2%) experienced transient discharge after the operation. None needed further treatments. The mean analgesic requirement was 2.4 (range 0–8) tramadol, 50 mg injections. Ten patients (20%) had post-operative

pain as a complication. They required extra doses of opiates (10 mg morphine chlorhydrate) with a mean requirement of 2.8 injections (range 1–4). None of the remaining 40 patients (80%) received any injectable analgesics after the second post-operative day. Some authors have indicated that inclusion of smooth muscle in the excised doughnut may be related to the subsequent development of pain [4, 11]. Length of hospital stay was between 1 and 5 (mean, 2.7) days. At 1 week, almost all patients experienced little pain at digital inspection and little bleeding after defecations. No anastomotic leakage, wound infection or healing delay was found. After 2 weeks, one patient (1.7%) suffered from painful defecation, but he returned to normal activity in a week. No pain during defecation, bleeding, stenosis, soiling, incontinence or other anal symptoms were found at 1 month after the operation, and all patients were well. All patients were contacted by phone 3 months later, and all were pleased with the results of this procedure. There were no symptomatic recurrences till date.

Discussion

Since its inception, stapler haemorrhoidopexy has rapidly evolved and become the procedure of choice for primarily internal haemorrhoids. In a study done by Shalaby and Desoky [10], it was concluded that the use of a circular stapler in the treatment of haemorrhoidal disease was safe, and was associated with fewer complications than conventional haemorrhoidectomy.

In another study by Hetzer et al [13], it is concluded that stapled haemorrhoidopexy is associated with reduced post-operative pain, earlier recovery time and return to work.

In yet another study by Arnaud et al [14], it is concluded that treatment of haemorrhoids with a circular stapler appears to be safe, effective, and rapid, causing a few post-operative complications and minimal post-operative pain.

In a study by Mehigan [15], it is concluded that the circular stapled technique offers a significantly less painful alternative to excision haemorrhoidectomy and is associated with an earlier return to normal activity. In spite of all the above studies as well as our study showing good results, one should remember that though stapler haemorrhoidopexy is a technically simple procedure, one should adhere strictly to its principles to avoid serious complications and get the above-mentioned advantages.

Conclusion

Stapled haemorrhoidopexy is a quick bloodless surgery. The painless post-operative period is a boon not only to the patient but also to the surgeon who need not have to

repeatedly attend to a patient with pain or perianal discharging wounds. It also does away with the need for cumbersome ‘sitz bath’ in the post-operative period. In view of the above advantages stapler haemorrhoidopexy may be considered as a better alternative to conventional haemorrhoidectomy for second and third degree haemorrhoids.

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