

Stapled Haemorrhoidectomy: Hope or Hype!

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This study was carried out to assess the feasibility of Stapled haemorrhoidectomy. This included 45 patients of which twenty nine were males and sixteen females. Age ranged from 23 to 84 years. The severity of the disease ranged from 3rd to 4th degree haemorrhoids. place of study was Sir Ganga Ram, Masood and Wishaw Hospital Scotland. Period of study was two years from October 2002 to October 2004.

Key words Stapled haemorrhoidectomy

Conventional scissors excision of symptomatic prolapsed hemorrhoids is a commonly performed but notoriously painful operation. The search for a painless method of hemorrhoidectomy has occupied the energies of many surgeons. Modifications to decrease postoperative pain have included the addition of lateral internal sphincterotomy, close hemorrhoidectomy, anal dilatation and anal sphincter relaxants, as well as the use of oral metronidazole. Although all of these techniques had their advocates, none has achieved a sufficiently significant decrease in pain to gain universal acceptance. It is no surprise, therefore, that the introduction of stapled hemorrhoidectomy, with its claims of pain-free convalescence, has been met with great enthusiasm by some surgeons.

Stapled hemorrhoidectomy, as initially advocated by Longo and Colleagues, has been hailed as a significant break through in the way surgical exhaustion of hemorrhoids is performed; it both dramatically decreases the level of postoperative pain and hastens the speed of healing after operation¹. However, some surgeons worry about leaving large skin tags behind the long-term sequelae such as strictures². It seems clear; therefore, that several important questions need to be answered before this new procedure can be welcomed unreservedly. First, is postoperative pain significantly improved? Second, is the operation applicable to all patients who require surgical excision of hemorrhoids? Third, what complications are associated with the procedure? Fourth, what is the cost advantage or disadvantage of the procedure?

Material and methods:

The study included a group of patients which accepted this modality of treatment over a period of two years. It included 45 patients of which 16 were females and 29 were males. Age ranged from 23 to 84 years. All patients were evaluated for the requirement of postoperative analgesia, hospital stay, postoperative bleeding and early mobilization for routine life activities. The study included patients operated at different hospitals including Sir Ganga Ram, Masood and Wishaw General Hospital Scotland. 29

of these patients were treated at Wishaw Hospital, all as day cases.

Results:

All patients proved the claims of this technique. Patients required markedly reduced amounts of analgesia and were saved from the hazards of repeated sitz baths. They were comfortably mobilized within 24 hours of the procedure. There was no need to pack the wounds and almost negligible bleeding in the postoperative period except in group two patients treated at Wishaw hospital who required emergency admission after discharge because of bleeding. Both patients were examined under anaesthesia and bleeding from suture line was secured with vicryl stitch. One of these two patients required transfusion. One patient in second group had residual skin tag which was excised at later date. The requirements for postoperative antibiotics was also markedly less than in cases of open haemorrhoidectomy. Only one patient complained of pain which was controllable with oral analgesia over a period of five days. No wound infection was seen as there is no external wound and the suture line above the dentate line never showed any signs of infection.

Discussion:

Two small preoperative randomized trials from the UK have provided convincing evidence of decreased pain following stapled haemorrhoidectomy compared with other techniques of haemorrhoidectomy^{3,4}. Both studies used an analogue pain score scale. The total pain score were significantly less for stapled *versus* diathermy operation in one study³ (P=0.003). In the other study⁴, average pain was significantly less for stapled compared with diathermy haemorrhoidectomy (P<0.0001). A larger study from Singapore⁵, comprising 119 consecutive patient's randomized diathermy or stapled haemorrhoidectomy, showed that maximal pain in hospital and two weeks after operation as well as pain at evacuation of stool while in hospital and two weeks after operation were significantly less after stapled compared with other haemorrhoidectomy. Analgesic requirements for up to 6 weeks after operation were also significantly reduced in the stapled group. At 6

and 12 week after operation, 15 and 5 percent of patients with open haemorrhoidectomy *versus* 5 and 2 percent respectively of patients after stapled haemorrhoidectomy still had pain. On rectal examination no patient had severe pain 6 or 12 weeks after stapled haemorrhoidectomy, compared with 16 and 3 percent respectively after open haemorrhoidectomy. Pain after stapled haemorrhoidectomy is of a different sort, being vague, dull and tenesmoid in nature; this results in a need for bowel movement. Should the purse-strings suture be placed too close to the dentate line, however, accidental stapling of the sensitive anoderm result in excessive postoperative pain.

A recent report from the UK described 5 patients with persistent pain after stapled haemorrhoidectomy out of a total of 22 treated⁶. This is difficult to understand as no other author has noted persistent pain after stapled haemorrhoidectomy. Indeed, a report of 206 operations with at least 6 months' follow-up in all patients failed to note any patient with persistent anal discomfort or pain⁷.

Neither of the randomized UK trails^{3, 4} reported any major adverse side-effect for stapled haemorrhoidectomy. The Singapore study⁵ showed similar total complication rates from stapled and open haemorrhoidectomy, with an incidence of 18 and 26 percent respectively (including mild strictures and bleeding). Although there was no statically significant difference between the groups, 5 percent of the patients having open compared with none of those under going stapled haemorrhoidectomy had secondary haemorrhage requiring in patient care. At 6 and 12 weeks after operation, 7 and 2 percent of patients under going open, 4 and 5 percent of those having stapled haemorrhoidectomy had a rectal stricture. There was also no significant difference in term of incontinence between the groups at 6 weeks and 3 months.

Other complication associated with stapling reported anecdotally had included a case of near-fatal pelvic sepsis⁸ and a patient with a rectovaginal fistula⁹. The suggestion of routine prophylactic antibiotic use after all stapled haemorrhoidectomies does not seem reasonable, given the unusual nature of an isolated case of pelvic sepsis⁸. Vaginal fistula may be prevented by routine vaginal examination after closure of the stapler (before firing) to insure that no part of the vaginal wall is accidentally included.

Initial concern that the technique is applicable only for early haemorrhoids and not for third-or fourth-degree haemorrhoids appears to be unfounded. The concern was that the procedure amount to overkill as smaller haemorrhoids can be treated successfully with elastics band ligation, sclerotherapy or infrared coagulation. All the published studies mentioned above involved preoperative randomization only of patients with symptomatic prolapsed haemorrhoids and have compared only patients who would otherwise have needed excisional haemorrhoidectomy^{3,4}. In the study from Hull³, satisfaction

with symptom control was similar in both groups, with 85 and 75 percent in the stapled and open groups respectively rating symptom control as good or excellent; 1 patient from the open and 4 from the stapled group complained of persistent skin tags. In the Leicester study⁴, eight of 11 open haemorrhoidectomy patients had their symptoms controlled at 6 weeks. Thus residual skin tags after stapled haemorrhoidectomy tended to shrivel by the third month after operation. The rectal sub mucosal purse-string should be inserted at about 4 cm from the anal verge (not much higher) to prevent excessive residual external haemorrhoids remaining.

A further study from Singapore¹⁰, which randomized 35 patients with thrombosed prolapsed circumferential haemorrhoids, has also shown that the stapler may be used with safety in such cases. Pain is more obvious after operation following stapling in these patients, but better results are obtained in the stapled group as early as two weeks after operation when pain and rectal discharge are significantly less than after conventional diathermy haemorrhoidectomy.

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