

Can Longo stapled haemorrhoidopexy for haemorrhoids be a day-case procedure?

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SUMMARY: Can Longo stapled haemorrhoidopexy for haemorrhoids be a day-case procedure?

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We retrospectively collected data of 100 consecutive elective Longo's procedures for third- and fourth-degree symptomatic haemorrhoids, classified ASA grade I and II. All patients stayed overni-

ght, because discharge was scheduled the day after the operation. 98 were discharged the day after the operation. Two patients were not discharged the day after because mild and severe bleeding respectively occurred during the first night after the operation which settled conservatively. All the patients were discharged on oral NSAID and stool softeners. None required rehospitalisation. Our retrospective study, pointing out that, in general patients did not require active intervention on the first postoperative night, represents an encouragement to introduce day-case stapled procedure for haemorrhoids.

KEY WORDS: Haemorrhoids - Haemorrhoidal disease - Stapled haemorrhoidopexy - Day-case procedure.

Introduction

The best possible treatment of third and fourth degree haemorrhoids is haemorrhoidectomy; although this traditional approach is effective, it is often accompanied by a high incidence of complications like urinary retention, bleeding, and significant pain (1).

Longo described in 1998 his stapled haemorrhoidopexy as alternative to conventional excisional hemorrhoidectomy (2). In contrast to the traditional approach, this method does not remove the hemorrhoidal tissue; alternatively, it fashions a mucosa to mucosa anastomosis by excising the submucosa proximal to the dentate line, resulting in relocation of the cushions and interruption of the feeding arteries; as a result of the excision occurring above the dentate line, there is decreased postoperative pain, less urinary retention and immediate post-operative bleeding is decreased as well and patient can be mo-

bilized early (3, 4). Stapled haemorrhoidopexy is better tolerated in term of recovery (5) and has become the procedure of choice for primarily internal haemorrhoids (6).

The present study was to assess that, since patients in general do not require active intervention on the first postoperative night, it is safe to change attitude and to perform this operation as a day-case procedure.

Patients and methods

The study included 100 consecutive patients, between age 20 to 70 from either gender, operated on by the same surgeon (GF) with third- and fourth-degree symptomatic haemorrhoids, classified ASA grade I and II. Base line investigations like complete blood count, chest x-ray and ECG and fitness for anaesthesia were done prior to admission. Patients took clean enema the night before surgery. Informed consent was obtained, after full explanation of the procedure. They had per-operative prophylactic single-

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dose antibiotic either cephalosporin 1 gram i.v. or Ciprofloxacin 400 mg i.v., if allergic.

All patients, under spinal anaesthesia (saddle), bar two who were operated on in local anaesthesia, 37 with PPH01-33 (Ethicon Endo-Surgery, Inc.), 26 with HEEA (Covidien; Tyco Healthcare Group LP, Norwalk, CT, USA), 4 with CPH34 (Chex Surgical Staplers; Frankenman International Limited, Hong Kong), 10 CPH34 HV (Chex Surgical Staplers) and 23 PPH-03-33 (Ethicon Endo-Surgery, Inc.), underwent stapled haemorrhoidectomy, in lithotomy positions. Surgical techniques varied regarding the type of circular stapler utilised:

- 1) PPH: a purse-string suture was carried out 4 to 5 cm above the dentate line to make the suture at the end of the procedure 2 to 3 cm proximal to the dentate line. The head of the circular stapler was introduced proximal to the purse-string, which was tied with a closing knot. The ends of the suture are pulled through the lateral holes of the instrument.
- 2) CPH34 and CPH34 HV: instead of a single purse-string suture, six separated stitches, at 3, 9, 1, 11, 5 and 7 hours, were placed proximal to the dentate line, as for traditional Longo procedure. The single suture threads were secured to each other in two groups in order to allow them to be retrieved through the lateral suture conduits positioned on the right and left side of the circular stapler.
- 3) HEEA: a purse-string suture was secured and knotted to the lowest anchor point (more proximal with respect to the surgeon) on the central rod of the anvil.

The stapler was fired in order to perform the prolapsectomy and rectopexy. Once the stapler was removed, meticulous haemostasis was achieved, where needed, by suturing of the bleeding points at the anastomotic line with absorbable material; the integrity of mucosa cylinder removed was checked; after five minutes observation to check that haemostasis was complete, a gauze was placed in the anal canal. This concluded the intervention.

Post operative pain control was achieved with a combination intravenous of normal saline and Ketorolac (60 mg), Ondansetron (4 mg), Pantoprazole (80 mg), Tramadol (50 mg), Dexamethazone (8 mg), at an infusion rate of 50 ml/hour. After five

hours the gauze placed into the anal canal was removed; patients were allowed to drink adequate oral fluid intake and recommended to eat a high fiber meal. All patients stayed overnight, because discharge was scheduled the day after the operation. 98 were discharged the day after the operation.

Two patients were not discharged the day after: during the night, one female suffered from mild rectal bleeding, one male from severe bleeding; the former lost 2 gr of haemoglobin, the latter lost 5 gr of haemoglobin. They immediately underwent surgical treatment to check the circular stapler line and to find the seat of bleeding. No seat of bleeding were found and a Foley catheter for compression was left in situ, to be deflated after 24 hours and removed the following 24 hours. No blood transfusion was needed in order to restore haemoglobin levels. They were discharged in fourth post-operative day.

All the patients were discharged on oral NSAID and stool softeners. Upon discharge from the hospital, a telephone number to contact the surgery unit for any advice was provided to all patients. Patients were directed to come to the emergency department for severe complaints.

The end point of the study was at the 2-week follow-up in the outpatients. Early fecal urgency was reported and reported rates ranged from 0 to 25%, with a median occurrence of 8.28%. Early constipation was also reported in 6 patients and in 1 case a fecaloma resulted. Fecal incontinence was seen more commonly. Fecal impaction was also reported. Bleeding with defecation was commonly reported.

Anyone required rehospitalization.

Results

100 patients underwent stapled haemorrhoidopexy. 34 (34%) were male and 66 (66%) were female. Mean age of patients was 42.90 ± 11.93 . Considering the grade distribution of haemorrhoids, most of our patients were of third degree haemorrhoids (65%). 98 patients (98%) were discharged after an overnight stay, without any problems. 2 (2%) were discharged on fourth p.o. day.

These two patients had post-operative bleeding, which settled conservatively.

Discussion

This study was conducted to determine if stapled haemorrhoidectomy has complications so severe to rule out it as a day case procedure.

A total of 100 patients who underwent this intervention, majority of them showed early post operative mobilization and no post operative complications like bleeding or pain. Two of our patients complained bleeding which settled conservatively.

Bleeding following stapled haemorrhoidopexy is said to most commonly occur immediately after surgery or between the fourth and tenth days after surgery (7) and may occasionally cause a hematoma which may require a late rectotomy to be evacuated (8). It has been suggested that bleeding often occurs secondary to an arteriolar bleed along the staple line, from defective techniques that result in injury to the mucosa and may also be secondary to inflammation and/or rejection of the staples when the procedure is completed during a period of anusitis (9).

In our study, the majority of the patients had early mobilization due to little post operative pain and no bleeding which had a direct impact on length of hospital stay and were discharged after an overnight stay. Only two had early complications that ruled out an early discharge.

Conclusion

There is growing literature on the safety and efficacy of day case procedures for stapled haemorrhoidopexy (10) but despite this evidence, at our centre, haemorrhoidectomies are still performed as an inpatient procedure, with a so-called '23-hour' stay, since the fear of unexpected readmission following discharge is an unwanted outcome for the patient, the surgeon, and the Health System. However, little post-operative pain, early mobilization and the fact that, in our experience, after inpatient stapled haemorrhoidopexy, patients in general do not require active intervention on the first postoperative night, should encourage us to introduce day-case stapled procedure for haemorrhoids since it is safe and feasible.

Primary care facilities well integrated with hospitals are essential for success, otherwise patients would return to the hospital if their postoperative problems cannot be managed adequately at home. Spinal anaesthesia (saddle) seems not to be a contraindication to day-case shifting of this procedure, however, local anaesthesia may become the preferred choice.

Conflict of interests

The Authors declare that they have no conflicts of interest.

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