

Surgical Treatment of Haemorrhoids with Stapler Haemorrhoidopexy: Our Experience.

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Abstract: Haemorrhoids represent the most common anorectal pathology. We are all born with haemorrhoids but some of us will suffer from them occasionally. The main complaints are bleeding and protrusion. This may lead to pain but usually haemorrhoids are painless. It is thought that around 70% of adult population above 30 years of age is affected with this disease.

We present here our study done on 138 cases of stapler haemorrhoidopexy in patients having IIIrd and IVth degree haemorrhoids disease is presented. All cases were done under regional anaesthesia with average operating time of 22 minutes and it was found that stapler haemorrhoidopexy was a safe and effective technique for treatment of third and fourth degree haemorrhoids. It is associated with lesser post operative complications and can be safely done as a day care surgery. stapler haemorrhoidopexy is effective in eliminating pain, bleeding and prolapsed associated with disease, requires a short hospital stays lead to early recovery and return to work as compared to excision haemorrhoidectomy.

Keywords: Haemorrhoids, stapler haemorrhoidopexy

INTRODUCTION

Haemorrhoids represents the most common anorectal pathology. We are all born with haemorrhoids but some of us will suffer from them occasionally. The main complaints are bleeding and protrusion. This may lead to pain but usually haemorrhoids are painless. Haemorrhoids represent anatomic and vascular formations normally present in everyone after birth. These are dilated veins within the anal canal in the sub epithelial region formed by radicles of the superior, middle and inferior rectal veins. As the age advances the anal tissue becomes loose and may slide out when we have bowel movement, this sliding of tissue is called prolapsed. Straining at the bowel movement increases this prolapse and straining damages the tissue causing bleeding. It is estimated that around 70% of adult population above 30 years of age is affected with this disease. It is more common in males, with the maximum incidence between 45 and 65 years of age¹.

Haemorrhoids are classified as first-degree if they bleed but do not prolapsed; second-degree haemorrhoids prolapsed during bowel movements, and reduce spontaneously; third-degree haemorrhoids prolapsed on straining and require manual reduction; fourth- degree haemorrhoids prolapsed and cannot be reduced manually. Treatment of haemorrhoids involve both conservative and surgical methods. Conservative treatment modalities are indicated for first and second degree haemorrhoids. Surgical treatment is indicated for third and fourth degree haemorrhoids. Various surgical interventions which have been used in the past or are still being used are Langenbeck, Ferguson, Parks method, but the most common method used is Milligan-Morgan method. The basic characteristics of these methods are the ligation of terminal branches of haemorrhoidal artery and haemorrhoidectomy². Excision haemorrhoidectomy is associated with significant post operative pain because of trauma to the sensitive anal mucosa and also the patients have to maintain a precise wound dressing to prevent local infection, because local wound exposure may lead to faecal contamination and delayed wound healing³. This created a need for search for other less

invasive procedures for treatment of haemorrhoids. During the 1980's in Italy use of automatic device in treatment of haemorrhoids was mentioned for first time. Later in 1993 Antonio Longo described stapled haemorrhoidectomy⁴. Stapled haemorrhoidopexy is a technique that reduces the prolapsed of haemorrhoidal tissue by excising a band of the prolapsed anal mucosal membrane above the dentate line, using a circular stapling device. This interrupts the blood supply to the haemorrhoids and reduces the potential of available rectal mucosa to prolapsed⁵. Due to the current significance of stapler haemorrhoidopexy in the treatment of internal haemorrhoids, we decided to present our experience of 138 cases and analyse results of procedure and its advantages over excision haemorrhoidectomy performed in our surgical unit.

MATERIALS AND METHODS

Between January 1, 2007 and August 02, 2009, 138 cases of stapler haemorrhoidopexy were done for patients having third and fourth degree haemorrhoid disease according to the grading of Miles⁶. Out of 138 cases 131 were males and 7 were female patients. The mean age was 49 years (ranging from 37 to 75). In all patients third or fourth degree haemorrhoidal disease was documented. The clinical history of all of these patients was carefully studied and all underwent inspection, digital exploration and proctoscopy. All patients were asked to get basic investigations (Hb., BT, CT, TLC, DLC, Urine Complete examination, FBS, Blood Urea, ECG, CXR). After investigations medical fitness for surgery was obtained and a pre anaesthesia check up was got done by anaesthetist. All surgical interventions were performed with preoperative enema on the day preceding the operation, no prophylactic antibiotics were used before surgery. All our cases were done under regional anaesthesia (spinal using 0.5% bupivacaine hydrochloride) as decided by the anaesthetist and there was no specific patient preferences or dislikes for method of anaesthesia. The procedure was done in a lithotomy position. In all cases we did 'stapler haemorrhoidopexy' using the procedure for prolapse and Haemorrhoids (PPH03) Proximate haemorrhoid stapler (Ethicon Endo-Surgery). The PPH Kit included: a) 33 mm

Haemorrhoidal Circular Stapler 9PPH03); b) Suture Threader (ST100); c) Circular Anal Dilator (CAD33); d) Purse-String suture Anoscope (PSA33).

Procedure: A circular and dilator was introduced to reduce the prolapsed of the anoderm and parts of the anal mucous membrane. After removal of the obturator, the prolapsed mucous membrane falls into the lumen of the circular anal dilator. Thus, a purse-string suture, nonabsorbable surgical, of 2-0 polypropylene 9Prolene; Ethicon, NW 824PPH) was placed circumferentially 3 to 5 cm above the dentate line through the window of the purse-string suture anoscope. Subsequently, a haemorrhoidal circular stapler was positioned and fired. Finally a gauze pack soaked with betadine and xylocaine was applied endoanally. The operative time was defined as the time from the beginning of the operation until the application of the endoanal dressing.

POST OPERATIVE FOLLOW-UP

The complications monitored during postoperative period were pain, bleeding, urinary retention, edema of anal and peri anal area. All patients were given a normal diet post operatively and were given stool softener along with mild analgesic and antibiotic for 5 days. A follow up examination was performed after 1 and 4 weeks post operatively.

RESULTS

Mean duration of surgery was 22 minutes (range 15-46 minutes). In all cases suture line was checked after removal of stapler and it was found that in 126 cases the line was present along the whole circumference and in other there were suture line discontinuities. In 9 cases there was some bleeding at the suture line which needed to be managed by reinforcing suture line with haemostatic stitches. All patients were discharged from hospital within 24 hours of surgery except for 3 cases due to some personal reasons.

There was no post operative bleeding in the entire series to require any subsequent surgery. Recurrence of the haemorrhoidal disease occurred in 3 cases and patients required excisional haemorrhoidectomy by the Milligan-Morgan technique at a later stage. In the post operative phase 12 patients reported significant pain for period more than two weeks and required prolonged use of analgesics. 7 cases reported increased frequency of defecation and gas incontinence. These were given a pre probiotic for a month and symptoms subsided. One patient had urinary retention and bladder catheterization was done with foley catheter. Significant improvement in terms of pre operative symptoms of pain, bleeding and prolapsed was found post operatively at one month follow up of cases. A high satisfaction was seen for the procedure among patients.

DISCUSSION

Haemorrhoid disease is one of the most frequent benign diseases in modern surgical practice. Management of the disease depends upon stage or degree of disease. First and second degree haemorrhoids in most cases can be managed by conservative measures and method. For third and fourth degree haemorrhoids surgery is the most effective therapy. Now we have a better knowledge of anatomical, pathophysiological and microbiological features of anorectum and this has helped in better management of the disease and evolution of better surgical techniques.

Modern haemorrhoidal surgery is characterized by numerous intervention methods such as Milligan-Morgan, Parks, Ferguson,

which though originating more than 75 years ago, still represent the gold standard⁷. During the past several decades investigational work was done in direction of possible out-patient haemorrhoid treatment: sclerotherapy, band ligation, cryotherapy and infrared coagulation. *Minimally invasive procedures* developed during last ten years; those are Doppler guided ligation of the haemorrhoidal artery branches, haemorrhoidectomy with ultrasound dissector and stapler haemorrhoidectomy. According to the literature, stapler haemorrhoidectomy is less risky procedure as it enables conservation of a larger mucosal portion^{8,9}. The pathophysiologic background of the treatment of haemorrhoidal disease by stapler is different than the pathophysiologic basis for excision haemorrhoidectomy. The complete circular mucosa cranial to the haemorrhoidal plexus is resected, allowing reduction of mucosa lifting and by fixing the prolapsed mucosa at the rectum wall. The reduction of arterial blood flow and reduction of the prolapsed mucosa and thereby the improvement of the venous reflux may be the key of the treatment, but further evaluation is necessary. Stapler haemorrhoidectomy is associated with less pain post operatively, shorter wound healing time, short hospital stay and requires less post operative care¹⁰⁻¹¹.

CONCLUSION

From our series and our experience we conclude that stapler haemorrhoidectomy is a safe and simple procedure. It is a minimally invasive procedure and is associated with less pain and it successfully eliminates pain, bleeding and prolapse associated with haemorrhoidal disease. It can be done as a day care surgery.

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