

Review Article: Management of Prolapsed Haemorrhoids

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In this article different options of prolapsed haemorrhoids management has been considered. Keeping in mind a study presented in 6th World Congress of Endoscopic Surgery in 1998 by A Longo, 144 patients with mucosal prolapse underwent a new corrective prolapse surgery by using a circular stapler. The degree of rectal mucosal prolapse has been classified IInd degree 6 cases, IIIrd degree 96 cases and IVth degree 42 cases. Procedure can be carried out under local or regional anaesthesia. All the patients were followed upto 3 years. Haemorrhoidectomy by using stapling device made the operation simpler, quicker, less painful and low incidence of complications.

Key words: Prolapsed haemorrhoids, management.

Haemorrhoidal disease is a very common condition over the age of 50 years. The main haemorrhoids are present as two piles on the right side of the anal canal anteriorly and posteriorly and one on left lateral position. Secondary haemorrhoids occur in between the main site

On straining first degree haemorrhoids move down to the anal margin but return spontaneously after finishing defaecation. Second degree haemorrhoids prolapse through the anal verge on defaecation and have to be replaced manually. Third degree haemorrhoids are those piles which prolapse repeatedly on exertion or straining and fourth degree haemorrhoids are permanently prolapsed and irreducible (A. Longo¹).

Prolapse of the haemorrhoidal tissue is basically responsible for complicating the disease apart from bleeding. Cause for the prolapse is fragmentation of the supporting tissue. The collapse of the Parks ligament causes a permanent downwards sliding of the anal mucosa that loses its normal relationship with the sphincter. Under these circumstances the rectal mucous membrane occupies the muscular anal canal permanently, while the anal mucous membrane and haemorrhoidal piles are distally displaced.

The anal prolapse causes an alteration of the vascular arrangement and of the anatomical relationship between the internal and external haemorrhoidal piles, hence provoking an obstacle to the venous return upward. The alteration arrangement of the haemorrhoidal tissue induces complications that can be caused by difficult venous rectum rather than by primitive angiocavernous tissue pathologies, while there is no statistically significant relation with venous pathologies such as varices and varicocele. Some of the symptoms of haemorrhoidal disease are clearly caused by complications of the haemorrhoidal tissue while other disorders connected to anal mucous prolapse. Haemorrhoidal disorder is taken to be the complex of symptoms cause by the complications affecting the haemorrhoidal tissue.

Management

There are various methods of dealing with third and fourth degree haemorrhoids, but it will be a good idea to divide methods into two broad categories i.e. traditional operative

excision (haemorrhoidectomy) and second is with the help of circular suturing device.

Operative excision haemorrhoidectomy

There are several described operations which aim to ligate and excise the haemorrhoids. Very high ligation and stripping of the haemorrhoids as was practiced during the early part of the century resulted in severe anal stenosis and this led to lower procedures which are currently practiced (McDonald, 1992) is the most widely practiced operation at the present time. The anal sphincter is gently stretched between the two index fingers. A dry swab is pushed into the rectum and is then partially withdrawn, when the haemorrhoids will appear along side it. They are picked up individually with artery forceps, and each is then dealt within turn. The pile is drawn downwards and with a pair of scissors a v-shaped cut is made through the overlying mucosa at its junction with the skin. By opened up until the pile is entirely stripped from its bed and is attached only by its vascular pedicle and by narrow strip of mucous membrane. Care is taken not to elevate any of the fibres of the external sphincter in dissection. A ligature is used to transfix and tie the pedicle as high as possible and distal part is cut off. After all piles have been dealt with and securing the haemostasis a large pad of gauze smeared with vaseline is applied to the anus.

By reduction of mucosa and haemorrhoidal prolapse with a circular suturing device

This technique is taken from a paper presented in the 6th World Congress of Endoscopic Surgery 3-6 June, 1998 in Rome, Italy, by (A Longo).

This study was undertaken to determine the efficacy and safety of a new surgical procedure for taking haemorrhoids that by reducing the mucous membrane prolapse and stopping the end branches of the upper haemorrhoidal artery through transverse incision of a suitable section of mucosa between the rectum and anal canal.

144 patients with mucosal prolapse underwent a new connective prolapse surgery using a circular stapler. The degree of rectal mucous membrane prolapse has been classified IInd degree 6 cases (2%) and all IInd degree prolapse patients have been previously treated by elastic ligature. Patients presenting ano-rectal pathologies

associated with anal mucous prolapse were excluded from the study.

Pre Operative Preparation

Enema to all patients 2 hours preoperative

Anaesthesia

- *Peri-sphincteric 66 patients (46%)
- *Peri-sphincteric with i/v sedation 16 patients (11%)
- *Postperineal block 44 patients (30%) with i.v. sedation
- *General anaesthesia 11 patients (8%).

The resected mucosa was examined and classified. Patients assessed their post operative pain, patient received follow up examination at day 3,7,15 and 30 month 3 and 6 year 1,2 and 3. Postoperative complications were noted and changes in symptoms were noted one year after surgery.

Table. Histological examination of the mucosectomy specimens (n=144)

Type of tissue present in submucous	110(76.4%)
Varying angiocavernous tissue	34(23.6%)
Mucosal tissue only present	
Shape of epithelium	
• Only prismatic stratified	28(19.4%)
• Prismatic stratified and prismatic simple	116(80.6%)
Arteriole present at proximal margin	139(96.5%)
Smooth muscle	
• Smooth muscle present (all <1mm thickness)	56(38.9%)
• Sections (out of 6 standard sections) were found	1-3 sections
• Average number of sections.	1.3 sections
• Range of sections	

Pre Operative Situation		Symptom Comparison (n=144)							
		Unmodified				Post Operative Situation (one year post operative)			
Symptoms	n=	%ag	n=	%age	n=	%age	n=	%age	
Bleeding	101	70.1	3	2.97	21	2.79	77	76.23	
Episodic edema or thrombosis	20	13.80	0	0	0		20	100	
Leakage	19	13.10	7	36.84	6	31.57	6	31.57	
Pain	18	12.50	1	5.55	9	50	8	44.44	
Itching	15	10.40	5	33.33	4	26.66	6	39.99	
Discrimination-tortion	9	6.25							
Gas incontinence	8	5.50	4	50	4	50	0	0	

Procedure

The procedure can be carried out under local or regional anesthesia preferably in dorso-sacral position. The procedure allows for variations depending on the size of the prolapse. Therefore, after obtaining sphincteric achalasia the size of the mucous prolapse has to be evaluated for all anal quadrants. Such evaluation can be carried out by rectal divarations raising a longitudinal fold of the ampular mucous membrane using forceps repositioning the anal mucosa in its original anatomical position. The height of the mucous fold that is necessary to raise enables an empirical evaluation of the mucous band that is necessary to resection in order to obtain correction of the prolapse.

Prolapse: Less than 3cm

Having opened the anorectum using Ferguson anal retractor using two atraumatic forceps applied to the anal margin, the anal canal is gently straightened outwards. The manoeuvre allows a clear identification of the dentate line and simplification of the subsequent steps. Starting from the anterior rectal wall at the distances of 4-5cm from the dentate line the longitudinal fold of the mucosa are raised clockwise in succession and pierced at the base with 00 monofilament.

In such a way a purse string suture is carried out including only the mucous and submucous membrane through all, the circumference of the distal portion of the rectal ampulla. It in some parts of the mucous membrane it is not easy to raise the folds due to the fact that it is well attached to the muscular wall, inclusion in the suture is avoided. Once the anal retractor is removed, four forceps are positioned on the anal margin, retracting and withdrawing the anoderm without stretching it.

An Ethicon Endo Surgery EDH 33 circular stapler in its maximum opened position is inserted into the rectum so that the head passes the purse string. The purse string is tied around the staple shaft. The purse string is turned till the staple housing reaches the anal margin exercising an adequate pressure, accompanied by slight rotating motions. Introducing the staple housing into the anal canal until the surgeon senses that he has passed through the sphincter having checked that upper edge of the staple housing has passed the dentate line symmetrically by at least 2cm over the stapler the same axis as the anal canal and resection and stapling of the mucous membrane after the stapler has been extracted a circular suture at least 2cm above the dentate line can be observed.

The suture will sometimes be interrupted where the mucous membrane has not been included in the purse string for the above mentioned reasons. If the suture bleeds a complementary haemostasis can be carried out with an infiltration of adrenaline solution (1:10,000) or in case of a spurt of blood a stitch with atraumatic 000 catgut can be used. A foley's catheter is positioned and if after three hours there is no suspicion of bleeding can be removed.

Prolapse: >3cm

Generally it is not technically possible to resect mucous folds higher than 3cm fixing the mucous membrane around the knob with a purse string. On the contrary, it is possible to reduce mucous prolapse of more than 3cm carrying out two parallel purse strings at a distance equal to the difference between the 3cm and the height of the mucous string band that has to be resected. Therefore before carrying out a purse string with the characteristics described above, a more proximal purse string has to be carried out following the same procedure. Obviously this purse string will be tied around the stapler axis before the other. It is important that the distance between the two purse strings is to more than 3cm because extensive quantity of the mucous membrane cannot be contained in the stapler housing and furthermore any mucous fold remaining outside the stapler, once the transection has been carried out, could form mucous tunnels. The last steps are same as those described previously.

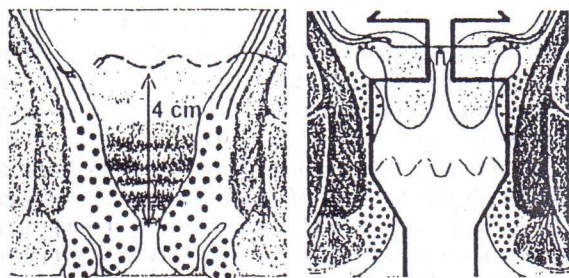


Fig. 1.a) Construction of a purse-string suture on the rectalmucosa, 4-5 cm from the dentate line.

b) The section of the mucous membrane to the transected is located between the anus and rectum. The anal mucous membrane stretched upward (anal lifting) is anatomical reposition.

Conclusion

Management of IIIrd and IVth degree haemorrhoids is always a problem regarding post operative complications and pain control. Traditional haemorrhoidectomy needs long periods of pain control, away from work and wound management.

Haemorrhoidectomy and excision of prolapse by using a stapling device made the operation simpler, quicker, less painful and low incidence of complications. In the above mentioned study the average length of operation was eight minutes. Patients were discharged on average of 6.3 hours following operation (range 20 hours - 7 days). The various complications observed were urinary retention, anal or circumferential oedema, sub-mucosal haematoma and partial recurrence but none of these complications need further surgery. A three year follow up was done on all these patients.

So in authors view in the coming era the practice might be changed from traditional haemorrhoidectomy to management with suturing device in case of third and fourth degree haemorrhoids, if we will be able to get some more data in favour of the new technique.

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