Dilatation versus sphincterotomy in third and forth degree hemorrhoid surgery DILATATION VERSUS SPHINCTEROTOMY IN THIRD AND FORTH DEGREE HEMORRHOID SURGERY: A PERSONAL EXPERIENCE

Article · July 2016

CITATIONS
0

READS
101

2 authors, including:

Asaad Kadhim
University of Basrah
17 PUBLICATIONS **1** CITATION

SEE PROFILE

Basrah Journal Of Surgery

Bas J Surg, June, 22, 2016

DILATATION VERSUS SPHINCTEROTOMY IN THIRD AND FORTH DEGREE HEMORRHOID SURGERY: A PERSONAL EXPERIENCE

Asaad Mohammed Kadhim
MB,ChB, CABS, General Surgeon, Al- Fayhaa General Hospital, Basrah, IRAQ.

Abstract

Anal hemorrhoid disease is being treated in different surgical procedures, of which two methods are commonly performed; hemorrhoidectomy with sphincterotomy and hemorrhoidectomy with dilatation. The present study compares between the post-operative outcome & favorability of the two methods.

One hundred patients (66 males and 34 females) underwent hemorrhoidectomy and dilatation for anal hemorrhoids disease were included in this analysis. After comparison of our results with other studies it was concluded that hemorrhoidectomy with dilatation results in less post-operative pain, less overall need for analgesia and less post-operative complications especially bleeding and fecal impaction.

Introduction

Hemorrhoids are cushions of submucosal tissue containing venules, arterioles, and smooth-muscle fibers that are located in the anal canal. The names ‘hemorrhoids' and ‘piles' are essentially synonymous though differently derived from the two main-and only certain-symptoms, respectively bleeding and protrusion[1].

Three hemorrhoidal cushions are found in the left lateral, right anterior, and right posterior positions. Hemorrhoids are thought to function as part of the continence mechanism and aid in complete closure of the anal canal at rest. Because hemorrhoids are a normal part of anorectal anatomy, treatment is only indicated if they become symptomatic.

Excessive straining, increased abdominal pressure, and hard stools increase venous engorgement of the hemorrhoidal plexus and cause prolapse of hemorrhoidal tissue. Bleeding, thrombosis, and symptomatic hemorrhoidal prolapse may result[2].

External hemorrhoids are located distal to the dentate line and are covered with anoderm. Because the anoderm is richly innervated, thrombosis of an external hemorrhoid may cause significant pain. External hemorrhoids and skin tags may cause itching if they are large. Treatment of external hemorrhoids and skin tags are only indicated for symptomatic relief.

Internal hemorrhoids are located proximal to the dentate line and covered by insensate ano-rectal mucosa. Internal hemorrhoids may prolapse or bleed, but rarely become painful unless they develop thrombosis and necrosis. Internal hemorrhoids are graded according to the extent of prolapse.

First-degree hemorrhoids bulge into the anal canal and may prolapse beyond the dentate line on straining.

Second-degree hemorrhoids prolapse through the anus but reduce spontaneously.

Third degree hemorrhoids prolapse through the anal canal and require manual reduction. Fourth degree hemorrhoids prolapse but cannot be reduced and are at risk for strangulation.

Hemorrhoidectomy is often required for large, symptomatic, combined hemorrhoids and is often the treatment of choice, especially if the patient has had chronic hemorrhoidal symptoms.

A number of surgical procedures have been described for elective resection of symptomatic hemorrhoids. All are based on decreasing blood flow to the hemorrhoidal plexuses and excising redundant anoderm and mucosa. Dilitation of the anus during hemorrhoidectomy represent a valid addition to the operation assuring a better post operative period as it removes pain by abolishing the hypertonicity of the internal anal sphincter and consequently avoid stenosis.

The improvement in the outcome of hemorrhoidectomy by adding dilatation in hemorrhoidectomy operations are also reflected into a shorter post-operative hospital stay[3].

Material and methods

The present study was conducted in Alfayha General Hospital Basrah, Iraq in the period from 1st of July 2014 to 31st of December 2015.

A total of 100 patients (66 males and 34 females) who underwent Morgan Milligan operation for symptomatic hemorrhoidal disease were included in this prospective study. They were evaluated regarding their pre-operative indication of surgery and post-operative outcome. All patients included complained of rectal bleeding, pain during defecation, anal discharge, and pruritus ani, while rectal examination had revealed hemorrhoid disease of 3rd and 4th degree[7].

All patients were pre-operatively evaluated by proctoscopy and all operations were performed by the same surgeon in the hospital. Phosphate enema was used before the operation, and a single dose of antibiotic prophylaxis was given before the induction of general anesthesia[8,9].

Follow up of patients was performed at 2 and 4 weeks intervals after the operation.

Patients were called for control visits at the time of the study and only those who could be reached were included in the final evaluation. They were asked about residual symptoms (i.e., skin tags, bleeding, anal pain, pruritus, and constipation) and were then examined. Patients were postoperatively asked if they were satisfied from operation.

The Visual Analogue Scale (VAS) scores for analgesic requirements, and other information were gathered from the patients and their medical records[4,5].

Postoperative pain was assessed with a linear visual analogue pain scale (VAS) on postoperative days 1 and 7 and the VAS scores were grouped as mild (0-3), moderate (4-6), and severe (7-10)[6].

All patients with pain scores higher than 3 were given analgesia using non steroidal anti-inflammatory agents (NSAIDs) which were also used in case of additional need for analgesia. Oral laxatives were given if the patient could not defecate on the second day of operation. Patients were advised not to strain during defecation to prevent edema and bleeding.

Results & discussion

A total of 100 patients were included in the present study. Female patients comprised 34 with mean age of 42 years, while males were 66 patients with a mean age of 45 years.

Table I; shows postoperative pain according to type of surgical intervention which reveals that concomitant anal dilatation with hemorrhoidectomy procedure produce less pain than concomitant sphincterotomy with hemaroidectomy and a high statistical significance ($P<0.001$). This result is in disagreement with other studies who claimed that internal Sphincterotomy along with Hemorrhoidectomy significantly reduces the post-operative pain without any major complications[4,10].

The need for analgesia by using dilatation in hemorrhoidectomy was less than in sphincterotomy with hemorrhoidectomy,

see Table II. Which was highly significant statistically (P<0.001)

The post-operative complications which include fecal impaction, bleeding, infection as shown in Table III favor dilatation intervention over sphincterotomy as post-operative complications were absent in 74 % in the dilation method whereas only 54 % of sphincterotomy method were free of postoperative complications.

Fecal impaction (16%) and bleeding (20%) were seen more in sphincterotomy than in dilatation as shown in Table III, which is in disagreement with other authors[10-15].

Post-operative infection was found relatively more in dilatation (16 %) than in sphincterotomy (10%), however this result was found statistically insignificant (P>0.5).

In our operations there was no retrorectal hematoma after hemorrhoidectomy and dilatation, which in comparison with stapled hemorrhoidopexy with or without dilatation 1.5% of post operative patients reported this complication in addition to rectal perforation after stapled hemorrhoidopexy[11,14]. Also in some reported cases concomitant lateral sphincterotomy with stapled hemorrhoidopexy ended with infection and staple line stenosis[12,16].

Conclusion

Dilatation with hemorrhoidectomy is significantly better than sphenectrictomy with hemorrhoidectomy in causing less post-operative pain, less need for analgesia and less post-operative complications regarding fecal impaction and bleeding.

Table I: Post-operative pain according to type of intervention (P< 0.001)

Type of intervention		Post-operative pain			Total
		Mild	Moderate	Severe	
Dilatation and Hemorrhoidectomy	Count	33	10	7	50
	%	66.0%	20.0 %	14 %	100.0%
Sphecterotomy, Hemorrhoidectomy	Count	6	25	19	50
	%	13 %	50.0%	37.0 %	100.0%
Total	Count	39	35	26	100
	%	39.0 %	35.0 %	26.0 %	100.0%

Table II: Type of surgical operation and needanalgesia (P< 0.001)

Type of intervention		Need for analgesia		Total
		No need	Need analgesia	
Dilatation and hemorrhoidectomy	Count	32	18	50
	%	64.0 %	36.0 %	100.0%
Sphecterotomy, hemorrhoidectomy	Count	7	43	50
	%	14.0 %	86.0 %	100.0%
Total	Count	39	11	100
	%	78.0 %	22 %	100.0%

Table III: Type of intervention * Postoperative complications P < 0.001

	Postoperative complications				
Type of intervention	**None**	**Fecal impaction**	**Infection**	**Bleeding**	**Total**
Dilatation count	37	2	8	3	50
	74.0%	4.0 %	16.0 %	6.0 %	100.0%
Sphincterotomy	27	8	5	10	50
	54.0%	16.0%	10.0%	20.0%	100.0%
Total count	64	10	13	13	100
	64 %	10.0%	13 %	13 %	100.0%

References

1. J. Morris (Editor), William C. Wood (Editor) Oxford Textbook of Surgery (3-Volume Set) 2nd edition :Oxford Press (January 15, 2000).
2. Brunicardi FC,Dana K ,Anderson,et al, (schwartzs principle of surgery-9 ed.) ch 29 McGrow Hill (2010).
3. Givel JC, Agrege PD: post operative anorectal stenosis. Schewiz.Rundsch.Med. 1990;79(26):831-4
4. DK Das , UC Choudhury , Lim ZS . Effectiveness of Internal Sphincterotomy in reducing Post Open Hemorrhoidectomy Pain: A Randomized Comparative Clinical Study,.International Journal of Collaborative Research on Internal Medicine & Public Health Vol. 5 No. 6 (2013)
5. Mukadam P., Masu S. Internal sphincterotomy as a postoperative pain relieving method in patients operated for open hemorrhoidectomy ,J Res Med Den Sci.2014; 2(1) :55-58
6. U.-D. Reips and F. Funke anal-fissure.org/hemorrhoid-surgery-hemorrhoidectomy-t7338.html (2008) "Interval level measurement with visual analogue scales in Internet-based research: VAS Generator." doi:10.3758/BRM.40.3.699
7. Welling DR, Wolff BG, Dozois R. Piles of defeat: Napoleon at Waterloo. Dis Colon Rectum. 1988 Apr;31(4):303–5.
8. Beck DE, Fazio VW. Current preoperative bowel cleansing methods. Results of a survey. Dis Colon Rectum. 1990;33:12–5.
9. Solla JA, Rothenberger DA. Preoperative bowel preparation. A survey of colon and rectal surgeons. Dis Colon Rectum. 1990;33:154–9.
10. Taha S A . Routine internal sphincterotomy,IJGE Issue 4 vol 1 2003.
11. Johnson DB, DiSiena MR, Fanelli RD. Circumferential mucosectomy with stapled proctopexy is a safe, effective outpatient alternative for the treatment of symptomatic prolapsing hemorrhoids in the treatment of symptomatic prolapsing hemorrhoids in the elderly. Surg Endosc 2003; 17:1990-1995
12. Official Journal of the American Society of Abdominal Surgeons, Inc.This article originally appeared in the Winter 20011 / Spring 2012 issue of the Journal.Our Experience with (CSH) Circular Stapled Hemorrhoidopexy as a Surgical Treatment of Piles.
13. Wunderlich, M., Freitas, A., Langmayr, J. et al, Anal incontinence after hemorrhoidectomy. J Urol Urogynakol. 2004;11:31–33.
14. Altomare DF, Rinaldi M, Sallustio PL et al Long -term effects of stapled haemmorrhoidectomy on internal anal function and sensitivity. Br J Surg 2000; 88:1487-1491.
15. Mehigan BJ, Monson JR, Hartley JE Stapling procedure for haemorrhoids versus Milligan-Morgan haemorrhoidectomy: randomised controlled trial. Lancet 2000; 355:782-785.
16. Mathai V,Ong BC , Ho YH Randomized controlled trail of lateral internal sphincterotomy with haemorrhoidectomy. Br J Surg 1996; 83:380-382.