ORIGINAL ARTICLE

A Two Years Experience of Closed Haemorrhoidectomy at CMH Rawalpindi

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ABSTRACT

Background: This prospective study was conducted in surgical unit II of combined military hospital Rawalpindi from Dec 2006 to Nov 2008 to assess effectiveness of closed haemorrhoidectomy procedure (excision and primary closure). The results were analyzed for postoperative complications, subjective improvement in symptoms and rate of recurrence till six months period of follow-up.
Study design: Observational analytical
Method: Total no of 56 patients including 38 males and 18 females of age group 30 to 65 year mean 50 years with 3rd & 4th degree haemorrhoids were included in the study through convenient sampling. After necessary preparation and investigation they were subjected to closed haemorrhoidectomy under spinal / epidural /general anesthesia. The results were recorded on preformed Performa for postoperative pain, bleeding, urinary retention, incontinence, length of hospital stay, anal stenosis patients satisfaction and recurrence on 1 week, 3 weeks, 3 months and six monthly follow up basis.
Results: Out of 56 patients only one patient had severe intractable post operative pain, oedema of anal canal and difficulty in passing stools. He was examined under anesthesia on 3rd post operative day and anal dilatation was performed. He was kept hospitalized for 2 weeks; Rest of the 55 patients 98.2% had uneventful recovery. 40 patients 71.4% were discharged on first post operative day and 15 patients 26.8% on 2nd post operative day. 5 patients 8.9% had spotting and minor discharge on dressing for a week.4 patients 7.1% required cathersation (all males) for urinary retention. Rest of the complications like anal stenosis, incontinence and recurrence were not observed in six months follow-up period. All except one patient were satisfied with the treatment on first follow-up visit.
Conclusion: Closed haemorrhoidectomy procedure contemplated in surgical unit of CMH Rawalpindi proved to be one of the effective methods of treatment for advanced 3rd and 4th degree interno external haemorrhoids.It is associated with minimum post operative complications comparable with the international standards and satisfactory for the patients at large.
Key words: Haemorrhoid,Haemorrhoidectomy, closed, complications

INTRODUCTION

Haemorrhoids commonly known as piles, is one of the commonest ano rectal condition presented in surgical out patient department. Anatomically haemorrhoids are cushion of tissue filled with blood vessels at the junction of rectum and anus[1]. The reason for over presentation may be wrongly labeling of other peri anal conditions as hemorrhoids by the patients. The symptoms of Haemorrhoidal disease has been recorded throughout the history[2]. The surgical treatment of the haemorrhoids is known since the time of Hippocrates who actually named the disease. The disease is caused primarily by ano rectal venous engorgement commonly at the anatomical sites of anal cautions i.e. 3, 7 and 11 O clock positions corresponding to the branches of superior rectal artery called internal haemorrhoids They are painless but more prone to bleed. Secondary Hemorrhoids occur in between these sites[3]. External haemorrhoids lie outside the anal verge. They are varicosities of veins corresponding to territory of inferior rectal arteries; branches of internal pudendal artriy. External haemorrhoids are more painful and more prone to thrombosis[4]. The disease is more prevalent in the population exposed to low fiber diet, lack of exercise wrong posturing, chronic constipation and straining[5] at stools and urine. It is also associated with the conditions leading to rise in Porto systematic blood pressure[6] or intra abdominal pressure. One of the important causes of Haemorrhoids have been attributed to the wrong posturing as the use of sitting toilets[7,8]. Obesity, pregnancy , insufficient liquids vitamin E deficiency also play a part .However the exact etiology remained obscured .Prevention of Haemorrhoidal diseases include exercise better posturing ,drinking more water and increased fiber in the diet all aiming to help reduce constipation and straining by producing stools that is softer and easier to pause[9].

History of treatment of disease by the surgeon is known since the era of Greek scientist. Since then the quest for search of most satisfactory method of treatment remains continued.

There is long list of available modalities of treatment from conservative to intervention for management of this disease. Some of the most commonly used procedures are injection sclerotherapy, rubber band ligation, electro co-angulations, cryosurgery, transanal Haemorrhoidal dearterialization, open excission haemorrhoidectomy and different modifications of closed haemorrhoidectomy .Even the laser technology have been employed for its treatment. Baron rubber band ligation is applicable only to internal Haemorrhoids to cutoff its blood supply[10]. In cryosurgery a frozen tip of cryoprobe is used to destroy Haemorrhoidal tissues[11]. The procedure has been abandoned because of its excessive side effects. .Transanal Haemorrhoidal de arterialization (THD) is effective above the nerve bundles or dentate line, again for internal Haemorrhoids[12,13]. It is best for bleeding internal piles as it stops bleeding immediately[14]. The researchers had been attempting to device a satisfactory method of treatment to avoid surgery because of its post operative sequela . However the advanced interno external hemorrhoids still require surgical excision. The following classification of haemorrhoids was used for selection of patients in this study.

Banov classification of hemorrhoids[15,16].

- 1st degree - bleed but do not prolapse
- 2nd degree - prolapsed but reduced spontaneously
- 3rd degree - prolapsed and require manual reduction
- 4th degree - prolapsed all times

Closed excision primary closure haemorrhoidectomy is commonly performed procedure in our unit so the results were recorded for the patient operated from Dec 2006 to Nov 2008, analyzed for outcome, and compared with other studies .as to how far the procedure is effective and superior to the conventional open excision ligation haemorrhoidectomy.

PATIENTS AND METHOD

This study was conducted in surgical unit II of CMH Rawalpindi from Dec 06 to Nov 08. Total no of 56 patients with 3rd and 4th degree hemorrhoids from 30 to 65 years age mean 50 were included in the study conducted over the period of 2 years. Male female ratio was 38:18 .They included army personals, officers, officers families and civilian not entitled patients.

INCLUSION CRITERIA:

All patients presented in surgical out patient department with 3rd and 4th degree haemorrhoids from Dec 06 to Nov 08.

EXCLUSION CRITERIA:-

- 1st and 2nd degree haemorrhoids
- Complicated hemorrhoids like strangulated , thrombosed , peri anal hematoma
- Co morbid conditions like malignancy, ascities, diabetes, tuberculosis chrones, disease, bleeding disorders, rectal prolapse.
- Patients unfit for anaesthesia.

All patients included in the study were thoroughly investigated for haemorrhoids and co-morbid conditions. DRE proctoscopy, sigmoidoscopy and abdominal ultrasonography were performed on all the patients along with the other routine investigations in the out patient department. Anesthesia fitness was taken from anesthesia department and they were called for surgery on routine appointment basis. They were admitted a day before operation and put on fluid diet. Six tablets of dulcolex lexative were given in the evening. Patients were kept NPO after mid night. A kaleen enema at 6AM in the morning on the day of surgery was given to all patients to evacuate residual stools. All patients were operated upon under spinal/epidural anaesthesia except two young females of age 32 and 36 years who were subjected to general anaesthesia on request. All were operated in lithotomy position. Prianal shaving was done at the time of surgery where required. Injection metronidazole and injection cefuroxime were used as peri operative antibiotic intravenously in three doses the first dose was given at the time of induction .

After preparation and draping, proctoscopic examination was carried out to have an idea about the fresh position of Haemorrhoids.A gauz pack was placed in the rectum and gentle four fingers anal dilatation was performed routinely in all the patients .A curved haemostat was applied to the Haemorrhoids identified for resection closer to the muco cutanious junction.The largest was tackled first.An oval incision was made around the Haemorrhoids and deepened with the cutting diathermy .The Haemorrhoids lifted off the internal sphincter through blunt and sharp dissection and loose connective tissue were coagulated with diathermy. Small mosquito artery forceps were applied to the surrounding mucosa and

Haemorrhoids dissected out up to the pedical along with the narrow rim of overlying mucosa .The pedicle was ligated with 3/0 vicral and Haemorrhoid excised .5 to 1cm away from the ligature. The cut end of the pedicel was buried under the mucosa during primary closure of mucosal defect with the same thread in a continuous running fashion till the cutanious border.There was no open wound left for drainage purpose. Rest of the Haemorrhoids were addressed in the same manner leaving sufficient muco-cutanious bridge in between, for primary closure of the wound. The blood loss was minimal and procedure was completed in 80 to 120 minutes mean 100 minutes .The adequacy of anal canal was confirmed with the digital examination at the end of the procedure. The proctoscopic examination was carried out for any open wound, bleeding and residual Haemorrhoids

The rectal gauze pack was removed and liquid paraffin lubricated single gauz was placed in the anal canal and a T- shape bandage was applied. Oral feeding permitted after four hours. All patients were put on injectable analgesics i-e injection nalbain 5mg diluted I/V 6 hourly and injection diclophenic sodium 75mg I/M 8 hourly for first 24 hours. 30 ml of lectulose was used as a stool softener. The gauz pack was removed on first defecation. Majority of the patients were discharged on the first post operative day and the rest on 2nd post operative day with five days oral analgesic (diclofenic sodium) .They were advised to have sitz bath twice daily. Followed by application of local anesthetic gel and regular use of stool softener till next visit. Patients were called for follow-up visits on weekly, 3 weekly, 3 monthly and 6 monthly basis.

RESULTS

Out of 56 patients only one patient had severe intractable post operative pain, oedema of anal canal and difficulty in passing stools. He was examined under anesthesia on 3rd post operative day and anal dilatation was performed. He was kept hospitalized for 2 weeks; Rest of the 55 patients 98.2% had uneventful recovery. 40 patients 71.4% were discharged on first post operative day and 15 patients 26.8% on 2nd post operative day. 5 patients 8.9% had spotting and minor discharge on dressing for a week.4 patients 7.1% required cathersation (all males) for urinary retention. Rest of the complications like anal stenosis, incontinence and recurrence were not observed in six months follow-up period. All except one patient were satisfied with the treatment on first follow-up visit. The last one patient became symptom free after three months.

Table 1: Postoperative complications

Postop pain	**Imme-diate**	**1 week**	**3 weeks**	**3 months**
Postop pain	7	1	Nil	Nil
Unitary retention	4	-	-	-
Hospital stay	2-3 days	-	-	-
Spotting	5	-	-	-
Bleeding	Nil	-	-	-
Anal stenosis	Nil	-	-	-
Incontinence	Nil	-	-	-
Wound healing	Nil	-	55	56
Recurrence	Nil	-	-	-
Patient satisfaction	50	55	55	56

Table 2: Post operative pain

Degree of severity	**No Of patients**
Severe	1
Moderate	6
Mild	49

Table 3 Length of hospital stay

No of days	**No Of patients**
2 days	40
3days	15
14 days	1

Table 4 Patient satisfaction

Time period	**Satisfied**	**Not satisfied**
1 week	55	1
3 weeks	55	1
3 months	56	Nil
6 months	56	Nil

DISCUSSION

Various researchers have attempted to device a cost effective and complication free method of dealing with Haemorrhoids. It has been observed that advanced interno- external hemorrhoids (3rd and 4th degree) are not amenable to the methods other than surgery .The post operative sequalae of conventional Haemorrhoidectomy had a role in making the procedure less popular[17]. Because Hemorrhoidectomy leaves an open wound and post operative pain[18]. It has been observed that after Haemorrhoidectomy with an open wound the resting pressure of anal canal is sufficiently raised and hence plays an important role in the post operative pain[19]. This provides the basis of avoidance of surgery by the patients as far as possible[20]. The closed haemorrhoidectomy procedure is known for faster healing and low rate of postoperative complications as compared to traditional open haemorrhoidectomy.

This has been concluded in most of the national and internationally published studies thus making closed haemorrhoidectomy a better alternative as compared to open traditional haemorrhoidectomy. Various modifications of closed haemorrhoidectomy in practice at different centers are

- Ferguson sub mucosal closed haemorrhoidectomy
- Closed bloodless haemorrhoidectomy
- Closed ligation and cautery haemorrhoidectomy
- Closed excision and primary closure haemorrhoidectomy in practice at mayo clinic.

In this study, we practiced the later one in our department. the results were satisfactory and encouraging for the both the patients and consultants with faster wound healing and very low rate of complications. Six patients had moderate degree of pain managed with oral analgesics for one week after discharged from the hospital. Four patients had urinary retention they were all elderly male above fifty years of age with some degree of prostatic enlargement. However one unlucky patient had very severe post operative pain and oedema of anal canal . He was not manageable with conservative treatment .He was re examined under anesthesia on 3rd post operative day. The mucosal stitches were removed and anal dilatation was performed and he was kept in hospital for 14 days and required intravenous analgesia for 10 days. This patient had severe symptoms due to low threshold for pain or due to some technical fault. His wound healing took longer than three weeks. Our rate of complications was much less than the open haemorrhoidectomy in the study of Muhammad Sajid Sheikh et all traditional open verses closed haemorrhoidectomy published in 2008[21] and meta analysis of randomized controlled trial of Ho YH Buettner PG & in open versus closed haemorrhoidectomy by You SY, Kim SH, Chung CS, Lee DK where as the results are comparable with the result of closed haemorrhoidectomy procedures of the forth mentioned studies. No doubt excision and ligation according to St.mark's hospital technique for Haemorrhoids surgery is considered to be simplest, fastest and is certainly the most definitive, reliable, satisfactory and a curative procedure. The closed haemorrhoidectomy took longer to be performed mean 100 mins as compared to open haemorrhoidectomy but there is definitive edge over the later with faster wound healing low rate of postoperative complications and less hospital stay.

CONCLUSION

Closed haemorrhoidectomy (excisions primary closures) has turned out to be a preferred method of dealing with advance Haemorrhoidal disease (3rd and 4th degree) .It is known for faster healing and low rate of complications and recurrence, here and world vide. However, it is more time consuming as compared open haemorrhoidectomy and demands more patience on the part of operator. It is safe effective and rewarding procedure for treatment of advanced Haemorrhoids if contemplated with precession and patience.

REFERENCES

1. Mediline plus medical encyclopedia: hemorrhoid surgery –series: Normal anatomy
2. Saenz EV, Esparza JP, Magro PM, Aquirre JP,Farnandez FA, Rosales JM et al haemorrhoidal disease in a specialty medical center. Rev Gastroenterol Mex 2006; 71:428-32.
3. Bhatti AA, Ahmed R, Butt MA. ComparativeStudy between sclerotherapy and manual anal Dilation in management of 2nd degree Hemorrhoids. Pak post grad Med J 1993; 4:267-76.
4. E. Gojlan , Pathology 2nd ed Mosby Elsevier , rapid Revie series.
5. Harms R (November 3, 2007) "Hemorrhoids during pregnancy: Treatment Options". Mayoclinic.www.mayoclinic.com/health/ Hemorrhiods-during-pregnancy/AN01720 Retrieved 2007-11-28.
6. Causes Of Hemorrhoids" Mayo clinic. November 28, 2006 Mayoclinic.www.mayoclinic.com/health/ Hemorrhiods/DS00096/DSECTION=3 .Retrieved 2007-12-07
7. Sikirov BA (1987) Management of hemorrhoids: a new approach ".*Isr .J .Med sci* 23 (4):284-6. PMID 3623887
8. Sikirov D (2003)."Comparison of straining during defecation in three positions: Results and implications for human health". Dig Dis.Sci 48(7):1201-5
9. Http://digestive.nidkk.nih.gov/ddiseases/pubs/ Hemorrhoids /index.htm#prevented
10. Longman RJ, Thomson WH (2006) "A prospective study of outcome from rubber band ligation of piles "Colorectal Dis 8 (2):145-8. doi:10.1111/j.1463-1318.2005.00873.x.PMID 16412076.
11. Macleod JH (1982)."In defense of cryothrapy for hemorrhoids. A modified Method" Dis. Colon Rectum 25 (4):332-5. PMID 6979469.
12. P.P. Dal Monte, C. Tagariello, P .Giordano, E. Cudazzo, A. Shafi, M . Sarago, M. Franzi Transal haemorr*hoidal decartelization: nonexcosional surgery for the treatment of haemorrhoidal disease Itech coloprotocol (2007)* 11:333-339
13. N. Sohn, J.S Aronoff, F.S Cohen, M.A Weinstein Transal haemorrhoidal Decartelization is an alternative to operate hemorrhoidectomy. The American Journal of surgery, 2001, Vol.182, issue 5,515-519
14. Schreyer M, Antoinette E, Rollinger G, Mall H, Arnold S (2006)."Dopplier-Guided Haemorrhoidal artery Ligation"Am.J.Surg **191**(1):89-93
15. Hemorrhoid at eMedicine
16. Banov L, Knoepp LF , Erdman LH , Alia RT (1985)."Management of hemorrhiodal disease"JSC Med Assoc 81 (7): 398-401. PMID 3861909

17. Sayfan J, Becker A, Koltum L. Suturless closed haemorrhoidectomy. Ann- Surg 2001; 234:21-4.
18. Raahave D. stapled anopexy for prolapsed hemorrhoids a new operation Ugeskr Laeger2002; 164:3862-5.
19. Patti R, Angileri M, Miqliore G, Sammartano S,Termine S, Crivello F et al. Effectiveness of contemporary injection of botulinum toxin and topical application of glyceryl trinitrate againstpost operative pain after Milligan- Morgan haemorrhoidectomy. Ann Ital Chir 2006; 77:503-8.
20. Anscombe AR,Hancock BD, Humphreys WV. A Clinical trial of the treatment of hemorrhoids by operation and Lord Procedure. Lancet 1974; 3:250-53.
21. Muhammad Sajid Sheikh Calpena R et al. open **versus** closed haemorrhoidectomy**.** Int J colorectal Dis 2004;. 19:3703
22. Ho YH , Buettner ,open comapared with closed haemorrhoidectomy : Meta anaylysis of randomized controlled Trials Pg School of medicine and North Queensland center for cancer Research , James Cook University , Townsville QLD 4811 , Australia .Yikhong,ho@jcu.edu.au