

HAEMORRHOIDECTOMY: OPEN VERSUS CLOSED TECHNIQUE

GULZAR AHMED MALIK, ABDUL WAHAB, IMTIAZ AHMED

ABSTRACT

Objective To compare open haemorrhoidectomy technique with closed one in terms of wound healing time and complications.

Study design A comparative clinical trial.

Place & Duration of study Department of Surgery Bahawal Victoria Hospital Bahawalpur, from June 2006 to June 2008.

Patients and Methods Patients of 3rd and fourth degree haemorrhoid (n=60) were selected for this study. They were divided into two groups. Group A (n=30) was treated by open haemorrhoidectomy (Milligan Morgan technique) and group B (n=30) was treated by closed haemorrhoidectomy (Ferguson technique). Postoperatively patients were evaluated for wound healing time and complications.

Results The age of the patient ranged from 18 years to 73 years. The wound healing time was little over 2 weeks in group B while it was just above 4 ½ weeks in group A with p value of less than 0.05. After 24 hours the mean VAS in group A was 4.76± 1.4 while it was 3.93± 1.68 in group B and the p value was 0.046 which was significant. The best results were obtained with closed haemorrhoidectomy technique as there was less post operative pain, rapid wound healing and less post operative bleeding with this approach.

Conclusion Closed haemorrhoidectomy is treatment of choice for 3rd and 4th degree haemorrhoids.

Key words Hemorrhoidectomy, Complications, Technique.

INTRODUCTION:

Haemorrhoids are dilated veins in relation to anal canal.¹ It is common disease affecting people of all ages and both sexes.² It has been estimated that 50% of the population has haemorrhoids by the age of 50 years,³ and these are supposed to be the commonest cause of rectal bleeding.⁴ It is more common in the prosperous societies, perhaps related to exercise; diet and bowel habits.⁵ Both males and females are affected by haemorrhoids. They are more common in old age but young patients can also be affected.

Clinically internal haemorrhoids can be classified into four degrees.⁶ First and second degree haemorrhoids usually respond to outdoor measures including dietary modifications, injection sclerotherapy, rubber band ligation etc. Surgical treatment is considered to be the best therapeutic modality for third and fourth degree haemorrhoidal disease.⁷

Haemorrhoidectomy can be performed by various techniques including open (Milligan Morgan), sub mucous resection (Park), closed (Ferguson) or by stapled techniques. Various outcomes have been reported with controversy still existing as to which of the techniques has an edge over the other.

Closed haemorrhoidectomy is the one in which excision of the haemorrhoids is followed by primary suturing of

Correspondence:

Dr. Gulzar Ahmed Malik
Department of surgery
Quaide Azam Medical College / BVH
Bahawalpur.

the mucosal and skin edges. This method is commonly used in USA. This method is stated to be better regarding postoperative pain, healing time and other postoperative complications^{8,9,10}. Open haemorrhoidectomy is traditional treatment of haemorrhoids and is widely practiced in UK. In this technique haemorrhoidal tissue is excised and wound is left open to heal by secondary intention. This study was undertaken to find out results of two techniques of haemorrhoidectomy.

METHODOLOGY:

This study was conducted in Surgical unit III of Bahawal Victoria Hospital Bahawalpur. Patients of 3rd and 4th degree haemorrhoids were chosen. Patients of both genders having no systemic illness were included. They were divided into two groups A and B. Group A included 30 patients who underwent open haemorrhoidectomy. Group B also included 30 patients who were treated with closed haemorrhoidectomy. Surgery was performed under spinal anesthesia.

In both the procedures patients were advised to take daily sitz bath after surgery. Variables noted were post operative pain, bleeding, urinary retention, anal fissure, stenosis and fecal incontinence. Pain was assessed with visual analogue scale (VAS). Follow up was made in both the groups for a period of three months. The data was analyzed by using SPSS version 11. Student t test and Chi square test were applied to determine the significance. P value of <0.05 was considered as significant.

RESULTS:

Sixty patients were selected, 30 in each group. The age ranged from 18 years to 73 years. The mean age was 46 years with most of the patients between 46 - 65 years of age. There was slight male predominance with 33 males and 27 females.

The wound healing time was little over 2 weeks in group B while it was just above 4 ½ weeks in group A with p value of less than 0.05. The pain score in two groups is shown in table I. After 24 hours the mean VAS in group A was 4.76± 1.4 while it was 3.93± 1.68 in group B and the p value was 0.046 which was significant. The VAS after 48 hours was 3.6± 1.16 in group A and 3.2± 1.34 in group B and p value was 0.224. After one week there was no significant pain in both the groups

No postoperative bleeding occurred in 17 patients of group B and one patient of group A. Twenty seven patients of group A and 13 of group B developed mild to moderate bleeding which was controlled by conservative measures. Two patients of group A developed severe haemorrhage. Urinary retention occurred in three patients, two from group A and one from group B. One patient of group A developed anal stenosis after 2 months which was treated by Hegar dilatation of the anal canal. There was no patient with faecal incontinence in both of the groups.

DISCUSSION:

Haemorrhoids can occur at any age but the peak incidence is found in 5th decade of life.¹¹ Aroya et al

Variable		Group A	Group B
Wound healing time		4.6 weeks	2.3 weeks
Pain after 24 hours of Operation		4.76±1.4 (VAS)	3.93±1.68 (VAS)
Pain after 48 hours of Operation		3.6±1.16 (VAS)	3.2±1.34 (VAS)
Haemorrhage (H)	No haemorrhage	1	17
	Mild to moderate haemorrhage	27	13
	Severe haemorrhage	2	0
Anal stenosis		1	0
Anal stricture		1	0
Faecal incontinence		0	0

concluded that the mean age of the patients presenting with symptomatic haemorrhoids was 43.5 years.⁸ In our study majority of the patients were between 46-65 years of age and the mean age was 46 years and it was comparable with the previous studies. Ho et al and Arbman et al reported that there is no difference in postoperative pain in both the techniques.^{11,12} Shoaib et al showed that pain and analgesic requirement on the day of surgery and 1st postoperative day was significantly lower in open haemorrhoidectomy than closed one,⁵ while the study of Kim et al concluded that the pain score was significantly lower in closed group than in open one.¹⁰ In our study the pain score after 24 hours and 48 hours of surgery was lower in closed haemorrhoidectomy than the open technique and is consistent with the above mentioned study.

Aroya et al described that there is no difference in two techniques regarding postoperative bleeding.⁸ In our study there were 17 patients in group B where there was no bleeding and it was only one group A. Postoperative bleeding was significantly less in closed technique than in open one and it is comparable with study of Ahmed et al.⁹ The study of Aroya et al, Ahmed et al and Ho et al described that wound healing time was shorter and quick in closed haemorrhoidectomy.⁸⁻¹⁰ Arbman et al described that in closed technique the wound heals faster but there is increased risk of wound dehiscence.¹² In our study wound healing was quick in closed technique than open technique. Complications like fissure, stenosis and urinary retention that are mentioned in the literature, occur in very few cases. One patient of group A developed anal stenosis. Urinary retention occurred in three patients, two from group A and one from group B.

CONCLUSIONS:

There was less pain, less haemorrhage and rapid wound healing in closed haemorrhoidectomy while the late complications like anal fissure, anal stenosis, and incontinence were insignificant in both the groups. Closed haemorrhoidectomy resulted in less post operative pain with quick wound healing time and less bleeding. This technique thus has an advantage on open haemorrhoidectomy.

REFERENCES:

1. William NS. The anus and anal canal. In: Russell RCG, Williams NS, Bulstrode CJK editors. *Bailey & love short practice of surgery*. 24th ed. London. Arnold 2004;1255-62.
2. Sandhu PS, Singh K. A randomized comparative study of micrinized flavonoids and rubber band ligation in the treatment of acute internal haemorrhoids. *Indian J Surg* 2004;66:281-5.
3. Orlay G. Haemorrhoids - a review. *Aust Fam Physician* 2003;32:523-6.
4. Hartlay GC. Rectal bleeding. *Aust Fam Physician* 2000;29:829-33.
5. Shoaib M, Ali AA, Naqvi N, Gondal KM, Chaudhry AM. Open versus closed haemorrhoidectomy, an experience at Mayo Hospital. *Ann KE Med Coll* 2003;9:65-8.
6. Steele RJC, Campbell K. Disorders of the anal canal. In: Cuschieri SA, Steele RJC, Moossa AR, editors. *Essential Surgical Practice*. 4th ed. London: Arnold; 2002. 634-7.
7. Ramadan E, Vishne T, Dreznik Z. Harmonic scalpel haemorrhoidectomy: preliminary results of a new alternative method. *Tech Coloproctol* 2002; 6:89-92.
8. Aroya A, Perez F, Miranda E, Serrano P, Candela F, Lacueva J et al. Open versus closed day case haemorrhoidectomy: is there any difference? Results of a prospective randomized study. *Int J Colorectal Dis* 2004;19:370-3.
9. Ahmed AN, Fatima N, Hussain RA, Chowdhry ZA, Qadir SNR. Strengths and limitations of close vs open haemorrhoidectomy of 2nd and 3rd degree. *Ann KE Med Coll* 2003;9:219-20.
10. Kim SH, Chung CS. Open vs closed hemorrhoidectomy. *Dis Colon Rectum* 2005;48:108-13.
11. Ho YH, Sco-choen F, Tan M, Leon AF. Randomised control trial of open and closed haemorrhoidectomy. *Br J Surg* 1997;84:1729-30.
12. Arbman G, Krook H, Haapaniemi S. Closed vs open hemorrhoidectomy - is there any difference? *Dis Colon Rectum* 2000;43:34-4.