

**A COMPARATIVE STUDY OF OPEN (MILLIGAN-MORGAN) VERSUS CLOSED (FERGUSON) HAEMORRHOIDECTOMY**Neha Thumar<sup>1</sup>, Alpesh Dhandhaliya<sup>2</sup>, Soham Patel<sup>3</sup>, Dr. Rajesh Sharma\*<sup>4</sup> and Dr. Harshit Shah<sup>5</sup><sup>1,2,3</sup>rd Year PG Scholar, Dept. of Shalyatantra, Govt. Akhandanand Ayurveda Collage.<sup>4</sup>Prof. & HOD of Dept. of Shalyatantra, Govt. Akhandanand Ayurveda Collage.<sup>5</sup>Asso. Prof, Dept. of Shalyatantra, Govt. Akhandanand Ayurveda Collage, Ahmedabad.**\*Corresponding Author: Dr. Rajesh Sharma**

Prof. &amp; HOD of Dept. of Shalyatantra, Govt. Akhandanand Ayurveda Collage.

Article Received on 02/01/2019

Article Revised on 23/01/2019

Article Accepted on 13/02/2019

**ABSTRACT**

**Objective:** To evaluate the outcome of Milligan-Morgan haemorrhoidectomy versus Ferguson haemorrhoidectomy on the basis of pain, wound healing time, infection. **Methodology:** patients with Grade III internal haemorrhoids randomly allocated. The entire wound was left open in the open haemorrhoidectomy and completely closed using 2-0 vicryl sutures in the closed haemorrhoidectomy. Postoperative pain was assessed. Additional consumption of analgesics on the day of surgery and at defecation during the first week was recorded. Patients were followed up 1, 2, and 3 weeks after the procedure. **Results:** significant differences were found between the two methods regarding complications, pain, wound healing. At follow-up after four weeks of the Ferguson patients had completely healed wounds, and none had signs of infection and pain. After the Milligan-Morgan no completely healed wounds and pain found. **Conclusions:** Both methods are fairly efficient treatment for third and fourth degree hemorrhoids, without serious drawbacks. The closed method has advantage in postoperative pain reduction and it is more advantageous with respect to faster wound healing.

**KEYWORDS:** Haemorrhoidectomy, Anal Pain, Wound Healing, Infection.**INTRODUCTION**

Haemorrhoids are one of the most common afflictions of human beings from time immemorial. Haemorrhoids are common disease affecting people of all ages and both sexes. It is said that 40 percent of the population have symptoms due to haemorrhoids at some time of their lives, a price possibly man has had to pay following the evolution of his erect posture. It has been estimated that 50% of the population has haemorrhoids by the age of 50 years and these are supposed to be the commonest cause of rectal bleeding. Historically, the most practiced surgical procedures for hemorrhoids were hemorrhoidectomies according to Milligan Morgan and Fergusson technique. Over the last few years, there has been increasing attention on surgical procedures to treat hemorrhoids. Several comparative studies have been performed to evaluate the procedures already available to treat second, third, and fourth-degree haemorrhoids, and new surgical techniques. However, still the Milligan-Morgan open hemorrhoidectomy is the most widely practiced surgical technique used for the management of hemorrhoids and is considered the intention. The main drawback of hemorrhoidectomy is the uncomfortable pain in the first postoperative week. In Fergusson closed haemorrhoidectomy excision of the haemorrhoids is followed by primary suturing of the mucosal and skin

edges with absorbable suture material like catgut. This method is stated to be better regarding healing time and other postoperatively complications like bleeding, postoperative pain and wound infections. The purpose of this study was to reduce the postoperative pain, wound healing time.

**Case Report 1**

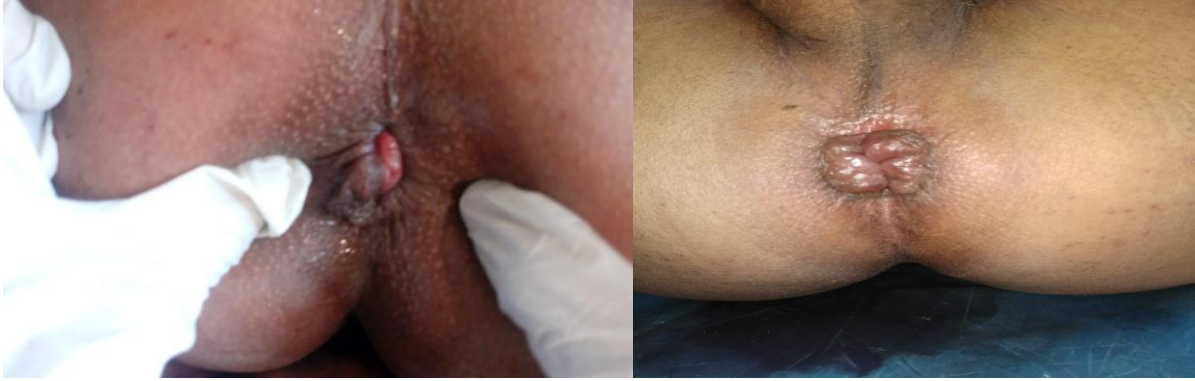
A 34 years old male patient visited to govt akhnadanand ayurved hospital in shalya tantra department on 24th October 2018 with complaints of prolapsed pile mass during defecation and reduce manually, severe pain and bleeding during defecation. The diagnosed as 3<sup>rd</sup> degree 7o'clock intrno-external haemorrhoid [Fig-1] and ferguson close haemorrhoidectomy performed.

**Case Report 2**

A 49 years old male patient visited to govt akhnadanand ayurved hospital in shalya tantra department on 2th sep 2018 with complaints of prolapsed pile mass during defecation and reduce manually, severe pain and bleeding during defecation. he diagnosed as 3<sup>rd</sup> degree intrno-external haemorrhoid [Fig-1.A] and open haemorrhoidectomy performed.

**METHOD**

**Pre-operative:** The written informed consent was taken from patient. The patient was kept nil orally from midnight. Soap water enema at night and proctoclysis enema in morning on the day of operation was given. Inj. Tetanus Toxoid 0.5ml IM given.



**Fig. 1: 7 o'clock Interno-external piles first consultation. Fig. 1: A 3rd degree haemorrhoids.**

**Operative procedure:** Under aseptic condition patient was given spinal anesthesia. In lithotomy position after painting and draping of perineal area 7 Oo'clock interno-external pilemass was hold by piles holding forceps and skin of external piles was incised by scissors up to mucocutaneous junction without injury to mucosa. A complete haemorrhoidectomy with high ligation carried out at 7 o'clock haemorrhoid and resulting longitudinal

wound in the lining of the anal canal and perianal skin is closed with continuous suture of vicryl 2-0. [Fig-2] in open haemorrhoidectomy the entire wound was left open. [Fig-2.A] After proper haemostatic achieved, part was cleaned by betadine then diclofenac suppositories inserted inside anal canal. T-bandage was applied and patient shift in the ward.



**Fig. 2: After close haemorrhoidectomy. Fig. 2: A After open haemorrhoidectomy.**

**Post-operative:** Patient was advised nil orally for six hours then allowed liquids only. Maintain hydration with intravenous fluid of Ringer Lactate, Dextrose, and Normal saline. Appropriate antibiotics and analgesic were given as injectable for initial two days and then orally for further five days. Following Ayurved medicines were prescribed from next morning for 15 days, *Erandbhrusta Haritaki* Powder 5 gm at bed time Tab. *Triphala Guggulu* 500mg thrice in a day.



**Fig. 3: After 4 week (close haemorrhoidectomy). Fig. 3: A after 6 week(open haemorrhoidectomy).**

### RESULT

In close hemorrhoidectomy did not experience any pain, whereas in the open hemorrhoidectomy patient experienced mild or moderate pain. Wound healing was between 5 to 6 weeks for the (Milligan-Morgan open haemorrhoidectomy [Fig-3.A] and was 3 to 4 weeks for the closed haemorrhoidectomy. [Fig-3] No Anal stenosis is found in close haemorrhoidectomy and mild anal stenosis found in open haemorrhoidectomy. No wound infection is found in both procedures.

### DISCUSSION

Patient experienced pain following hemorrhoidectomy but it was more in open haemorrhoidectomy than closed hemorrhoidectomy. This occurs due to low ligation incorporating the sensitive anal mucosa. Another reason for post-operative pain is the presence of large raw area of anal canal wall that causes anal spasm and painful defecation. This is commonly seen after open hemorrhoidectomy. These results were comparable to study conducted by where pain following open hemorrhoidectomy was more than closed technique. Long term pain is seen in patients undergoing open hemorrhoidectomy. This is due to the excised anal canal wall leaving large raw areas. In my study patient had completely healed wounds following closed hemorrhoidectomy as compared to open haemorrhoidectomy after four weeks. There is delayed wound healing following open hemorrhoidectomy because the larger areas of anal canal walls are excised and left open.

The lining of the anal canal is highly innervated tissue in the digestive tract and thus pain after haemorrhoidectomy is an expected outcome. The exposed area of the anal canal following open haemorrhoidectomy has been implicated as the cause of pain and delayed wound healing in comparison Ferguson's closed haemorrhoidectomy have been advocated. Relief from Anal pain was seen earlier Closed (Ferguson's) hemorrhoidectomy.

### CONCLUSION

Closed hemorrhoidectomy leads to faster wound healing. It is a safe and effective procedure. The complications

like pain, discomfort and discharge were less. The hospital stay was less in closed technique as compared to open technique. Complications like anal stenosis were not seen in the follow-up. Closed hemorrhoidectomy is the procedure of choice for third and fourth degree hemorrhoids.

### REFERENCES

1. Hulme-Moir M, Bartolo D C: Haemorrhoids. *Gastroenterol Clin North Am*, 2001; 30: 18-197.
2. Parks A G: De Haemorrhoids: A study in surgical history. *Guys Hosp Rep.*, 1955; 104: 135-156.
3. Loder P B, Kamm M A, Nicholls R J, Phillips R K S: Haemorrhoids: Pathology, Patho-physiology and etiology. *Br J Surg*, 1994; 81: 946-954.
4. Arroyo A, Perez F, Miranda E, Serrano P, Candela F, Lacueva J H. Open versus closed Day case haemorrhoidectomy: is there any difference? *Int J Colorectal Dis.*, 2004; 19(4): 370-3.
5. Milligan E T C, Morgan C N, Jones L E, Officer R. Surgical anatomy of the anal canal and The operative treatment of haemorrhoids. *Lancet*, 1937.
6. Ferguson J A, Heaton J R. Closed haemorrhoidectomy. *Dis Colon Rectum*, 1959; 2: 176-179.
7. Sagar P M, Wolff B G. The use of the modified Whitehead procedure as an alternative to the closed Ferguson haemorrhoidectomy. *Tech Coloproctol*, 1999; 3: 131-134.
8. Sayfan J, Becker A, Koltun L, Sutureless Closed Haemorrhoidectomy: A New Technique *Ann Surg*, 2001; 234(1): 21-24.
9. Arbman G, Krook H, Haapaniemi S. Closed vs. Open haemorrhoidectomy: is there any difference? *Dis Colon Rectum*, 2000; 43: 31-34.
10. Sayfan J. Haemorrhoidectomy: avoiding the pitfalls. *Tech Coloproctol*, 1998; 2: 129-130.
11. Longo A. Treatment of haemorrhoids disease by reduction of mucous and haemorrhoidal Prolapsed with a circular suturing device, a new procedure, proceeding of sixth world congress of endoscopic surgery. Rome Monduzzi Ed, 1998; 777-84.
12. Guenin M O, Rosenthal R, Kern B, Peterli R, Flue M O, Ackermann C. Ferguson Haemorrhoidectomy: Long-Term Results and Patient Satisfaction After

- Ferguson's Haemorrhoidectomy. *Dis Colon Rectum*, 2005; 48: 1523-7.
13. Johannsson H O, Pahlman L, Graf H W, Johannsson O, Pahlman L, Graf W. Randomized clinical trial of the effects on anal function of Milligan-Morgan versus Ferguson haemorrhoidectomy *Br Jour Surg*, 93(10): 1208-1214.
  14. Gençosmanoglu R, Sad O, Koc D, Inceoglu R. Haemorrhoidectomy: open or closed Technique A prospective, randomized clinical trial. *Dis Colon Rectum*, 2002; 45: 70-75.
  15. Rafiq K, Scott P D. Closed Versus Open Haemorrhoidectomy Little to choose between two techniques *Ann King Edward Med Coll.*, 2001; 7(1): 6-7.
  16. Shoaib M, Ali A A, Naqvi N, Gondal K M, Chaudhry A M. Open versus Closed Haemorrhoidectomy-An Experience at Mayo Hospital. *Ann King Edward Med Coll.*, 2003; 9(1): 65-8.
  17. Uba A F, Obekpa P O, Ardill W. Open versus closed haemorrhoidectomy *Niger Postgrad Med J.*, 2004; 11(2): 79-83.