A RANDOMIZED TRIAL TO COMPARE PILE SUTURING WITH HEMORRHOIDECTOMY FOR TREATMENT OF THIRD AND FOURTH DEGREE HAEMORRHOIDS

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ABSTRACT

Objectives: The objective of the study was to compare the outcome of pile suturing and conventional haemorrhoidectomy in patients with third and fourth degree haemorrhoids.

Study design: Quasi experimental study

Place and Duration of Study: This study carried out in Combined Military Hospital (CMH) Lahore from January 2007 to July 2007.

Subjects and Methods: A total of 60 patients having hemorrhoids were included in the study and distributed between two equal groups .Group A for pile suturing was compared with group B for hemorrhoidectomy. Digital rectal examination (DRE), proctoscopy and sigmoidoscopy were done for assessment and planning. Chi square test was applied. Treatment response and complications were assessed over a follow up period of three weeks.

Results: In pile suturing symptomatic cure was achieved in 22(73.3%) patients (No pain, stoppage of bleeding and mucus discharge). While in hemorrhoidectomy it was achieved in 12(40%) patients. However only mucus discharge is less in pile suturing then hemorrhoidectomy all other variables were same.

Conclusions: The results shows that only one P-value of mucus discharge was significant therefore pile suturing is slightly better then hemorrhoidectomy. Pile suturing is a safe, effective, and swift method for treatment of prolapsed hemorrhoids. The procedure causes minimal pain and chances of complications are perceptibly less. The wound healing is quick, allowing an early return to normal activity.

Keywords: Hemorrhoid, Haemorrhoidectomy and Pile suturing

INTRODUCTION

Hemorrhoidal disease is a very common condition in modern surgical practice[1]. It is usually defined as a group of symptoms caused by the complications involving the hemorrhoidal tissue. Hemorrhoidal tissue or hemorrhoids represent anatomic and vascular formations normally present in everyone after birth[2].

It is thought that around 70% of adult population above 30 is affected with this disease. It is more common in males[3], with the maximal incidence between 45 and 65 years of age. Internal hemorrhoids do not imply a diseased status. They are considered a disease only after the complications i.e. bleeding, protrusion, thrombosis and inflammation. Up-to-date hemorrhoidal treatment implies conservative and surgical approaches. Conservative approach is indicated mostly for hemorrhoides stage I and II[4].

Haemorrhoids have been treated by surgeons for centuries[5]. The first surgical treatment was described in the Hippocratic Treatises of 460 BC, and suggested transfixing them with a needle and tying them with a very thick and large woollen thread. Surgical treatment is indicated for hemorrhoids stage III and IV. Within the group of traditional surgical interventions there are many approaches[6] used in the past or still in use today (Langenbeck[7], Ferguson, Whitehead, Parks methods)[8], but the most common approach is Milligan-Morgan method[9]. The basic characteristic of these procedures are the ligation of terminal branches of hemorrhoidal artery and hemorrhoidectomy[10] .However, numerous postoperative complications[11] - bleeding, pain, unnecessary hospitalization - urged the search for other, less invasive recent procedures like

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cryosurgery and rubber band ligation. "Suturing ligature without excision" in hemorrhoids consists of suturing ligature of the vascular bundle, including ligation of the hemorrhoid node itself without excision. It is moreover characterized by minimal pain, minimal bleeding good state of well-being and hygiene, normal intestinal passage from the first day with flatulence and defecation. Pile suturing is a simple technique require no dissection. Expected post operative morbidity and complications are less, patient can return to work early. It can be recommended as procedure of choice if future studies prove its superiority against open haemorrhoidectomy.

The purpose of this study was to compare the outcome of pile suturing and conventional haemorrhoidectomy in patients with third and fourth degree haemorrhoids.

PATIENTS AND METHODS:

The study was carried out at Combined Military Hospital Lahore. Sixty patients were divided in two groups. Thirty patients in each group. It was non probability purposive. Sampling and all patients having hemorrhoids above 18 years of age regardless of sex, were included.

Patients having hemorrhoids but also having thrombosed piles,carcinoma rectum, Ulcerative colitis, pregnancy, enlarge prostate, stricture of the urethra chronic constipation and portal hypertension were excluded. It was quasi experimental study.

Patients were assessed for bright red painless bleeding, mucus discharge, prolapse and pain. Detailed history, clinical examination and digital rectal examination (DRE), proctoscopy and sigmoidoscopy were performed. All the patients with third and fourth degree haemorroids admitted through OPD or emergency were included in this study after meeting the inclusion criteria and taking informed consent. Patients were selected for indoor treatment and randomly allocated by envelope system into two groups, 30 patients in each group. Group A for pile suturing was compared with group B for hemorrhoidectomy.

Data collection: Data was analyzed on SPSS version 10. Descriptive statistics , frequencies and percentages were computed for qualitative variables like gender, peroperative complications and postoperative complications including early and late. Chi square test was applied to compare these qualitative variables among groups and to test the hypothesis. Treatment response and complications were assessed in these 60 patients over a follow up period of three weeks.

RESULTS

Sixty patients were selected for this study. Treatment response and complications were assessed in these 60 patients over a follow up period of three weeks. Age description was given in table-1. There were 20 (33.3%) males in group A and 18 (30%) males in group B. Both the groups were comparable with respect to age ($p > 0.05$) and gender ($p = 0.59$). In group A, 22 (73.3%) patients responded to treatment and were symptom free after 3 weeks .While in group B,12 (40%) were symptom free at the end of 3 weeks. ($p = 0.009$). In group A, 8 (26.7%) patients complained of pain after pile suturing while in group B, 18 (60%) patients complained of pain after hemorrhoidectomy ($p=0.009$). All these patients were managed by reassurance and injectable NSAIDS. Description of bleeding was given in table- 2. There was insignificant difference in bleeding between both the groups ($p=0.580$). All these patients were reassured and treated conservatively. There was significant difference in mucus discharge in both the groups as given in table-3 ($p=0.001$). In group A, 5 (16.7%) patients experienced post operative complications after pile suturing and in group B. 7 (23.4%) patients complained of post operative complications after hemorrhoidectomy ($p=0.52$).

DISCUSSION

This study on comparison of pile suturing and haemorrhoidectomy was carried out in surgical department of CMH Lahore over a period of six months. This study included 60 patients suffering from 3rd and 4th degree hemorrhoid selected at random. In the western culture the incidence of haemorrhoid is very high. According to Mc Latchie it was 40%. Pile

Table-1: Showing age distribution (n=60)

Class Interval	Pile suturing (%)	Hemorrhoidectomy (%)	Total
<=30	10 (16.6)	7 (11.6)	17 (28.3)
31-40	8 (13.3)	8 (13.3)	16 (26.7)
41-50	6 (10)	10 (16.6)	16 (26.7)
51-60	4 (6.6)	3 (5)	7 (11.7)
>60	2 (3.3)	2 (3.3)	4 (6.7)
Total	30 (50.0)	30 (50.0)	60 (100)

Table-2: Bleeding in both groups (n=60)

	Pile Suturing (%)	Hemorrhoidectomy (%)	Total
Severe	0 (0.0)	0 (0.0)	0
Moderate	1 (3.3)	3 (10.0)	4
Mild	6 (20.0)	6 (20.0)	12
None	23 (76.7)	21 (70.0)	44
Total	30 (100.0)	30 (100.0)	60

p value = 0.580 (Insignificant)

Table-3: Mucus Discharge in both groups (n=60)

	Pile Suturing (%)	Hemorrhoidectomy (%)	Total
Present	4 (13.3)	14 (46.7)	18
Absent	26 (86.7)	16 (53.3)	42
Total	30 (100.0)	30 (100.3)	60

p value = 0.001 (significant)

suturing was simpler than all other procedures ,because no costly equipment such as cryoprob set for cryosurgery[12], bipolar diathermy and plastic proctoscope in diathermy coagulation, infrared coagulation for infrared photocoagulation[13] and laser apparatus for laser ablation are required.Pile suturing was included in my study to evaluate its own efficacy and also to compare its result with haemorrhoidectomy. These methods had been compared in many other clinical trials in the past. Suturing or fixation of the hemorrhoids is a well-known method. El-Meguid innovated a 'pile Suture' method,where three interrupted sutures were used to fix the hemorrhoidal cushions[14]. Patnaik and Mangual have described this technique as a better alternative to the standard hemorrhoidectomy. Serdev advocated a method of 'pile stitch', quite similar to the technique we adopted in our procedure. He used absorbable sutures, which were placed above the dentate line to attach the cushion back to the internal sphincter. He claimed that this obliteration of the hemorrhoidal tissue reduced the bulk of the pile mass.Gaj and his associates have proposed a technique of transfixed correction of grade III hemorrhoids[15]. The operation of hemorrhoids is aimed at the removal of the dilated veins, ligation of hemorrhoidal arteries and fixation of the anal mucosa to the underlying muscle to prevent prolapse and to obliterate submucous space. The procedure adapted by us fulfills all the above requirements in the sense that the pathological enlargement of the hemorrhoidal plexus is reduced and the distal displacement of the hemorrhoids is repositioned back by plication while ensuring simultaneous ligation of hemorrhoidal vessels. The main disadvantages of this procedure is development of external hemorrhoidal thrombosis in the plicated segment of the hemorrhoid, persistence of anal skin tags in patients with grade IV hemorrhoids and development of anal papillae or tags at the site of hemorrhoid ablation. The complication rate with our procedure is less when compared with the above-mentioned surgical procedures It was observed that patients having grade IV hemorrhoids complained of greater intensity of pain for longer duration in our series. Few of them also had wound infection. More patients with grade IV hemorrhoids had residual anal skin tags[16]. The rationale behind using an absorbable material such as chromic catgut for plication was that the time needed for absorption of the

catgut was almost identical to the time needed by the ablated and plicated hemorrhoidal mass to get fixed to the underlying tissue. It is however admitted that no direct comparison to the traditional methods of hemorrhoidectomy is undertaken, so one cannot know whether this method truly yields improved outcomes. The disadvantage of the method is that no pathologic specimen[17] is obtained. Therefore, some cases of anal cancer may be overseen. Despite this fact, we must neither disapprove nor limit the application of the method, because the risk is minimized by a careful clinical examination performed by an experienced doctor. Until lately, the finding of anal cancer in an excised hemorrhoid specimen was considered to be a rare event (less than 1% of the cases). Recently, Cataldo and MacKeigan,re-viewing 21,257 hemorrhoidectomy specimens, found only 1 case of unexpected anal cancer[18]. Based on this fact they recommended that histological examination of hemorrhoidal nodules should be a test for selected cases only rather than a routine one. The comparison to previously published data cannot be taken as a direct evaluation, because the literature based data presented may have been derive from substantially different patient populations. Nonetheless, the comparison does speak about the efficacy of the procedure advocated by us in treating advanced hemorrhoidal disease.

CONCLUSION

The result shows that only one P-value of mucus discharge was significant. Therefore pile suturing is slightly better then hemorrhoidectomy. Pile suturing is a safe, effective, and swift method for treatment of prolapsed hemorrhoids. The procedure causes minimal pain and chances of complications. The wound healing is quick, allowing an early return to normal activity.

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