Original Article

Comparison of Postoperative Outcomes of Open Versus Closed Hemorroidectomy at Tertiary Care Hospital

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ABSTRACT

Objective: To compare the postoperative results of open versus closed hemorrhoidectomy.
Study Design: Comparative study.
Place and Duration of Study: This study was conducted at the **S**urgical Department PMCH Nawabshah. From December 2017 to December 2018.
Materials and Methods: All the patients were admitted through surgical OPD. Digital rectal examination along with proctoscopy was done to rule out other surgical ano-rectal pathologies. All the required investigations were done and open and closed hemorroidectomy were performed.
Results: This study was conducted on 120 patients. They were divided into two groups. Group 1 included 60(50%) patients and Group 2 included 60 (50%). Group A underwent only open hemorroidectomy and Group B underwent closed Hemorrhoidectomy. Postoperative complications were recorded and results were compiled on this basis. In Group 1 only 25 (41.66%) patients complained of postoperative defecation pain. Only 13(21.66%) complained of postoperative bleeding in 10 (16.6%). In Group 2 18(30%) complained of pain during defecation after surgery and 12(20%) developed early postoperative bleeding.
Conclusion: It is concluded that the closed hemorrhoidectomy is the better option due least pain and bleeding postoperatively as compared to open method.
Key Words: Closed Hemorrhoidectomy, Open Hemorrhoidectomy, Postoperative Pain, and Postoperative Bleeding.

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INTRODUCTION

Hemorrhoids are the common ano-rectal pathologies that are characterized by the symptomatic enlargement and distal displacement of the hemorrhoids. The main clinical features of hemorrhoids are per rectal bleeding, prolapsed, pain, thrombosis, itching and mucus discharge. These are classified according to their degree of prolapse of the anal canal. External hemorrhoids arise from the external hemorrhoid plexus below the dentate line and are called as acute having thrombosis and chronic having anal skin tags.[1]

Its etiology is still not completely understood but the risk factors considered are the constipation and prolonged straining due to hard stool and resultantly increasing the intra abdominal pressure which hinders the venous return causing dilatation of vessels there.[2]

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Hemorrhoids have been treated by surgeon for many centuries. History of topical therapy dates back to to Egyptian papyri of 1700 B.C. The first ever surgical treatment was unveiled by the Hippocratic Treatises of 460 B.C. In this, hemorrhoids were transfixed with needle and tied with thick and large woolen thread.[3]

In 1937, Milligan Morgan unveiled the procedure of open hemorroidectomy while presenting his paper on this procedure. In this wounds were left to heal by secondary inention. In 1959, Ferguson discovered the closed hemorrhoidctomy in which wound is closed primarily with an absorbable suture.[4]

The hemorrhoids are treated by two methods viz conservative and interventional. Conservative treatment involves changes in diet and life style apart from regular exercise, avoidance of straining and constipation relieving medications. The combination conservative therapy are steroids, anesthetics, antiseptics and barrier creams that cause relief of symptoms temporarily. Moreover, venotonic therapies have also enormous effects on bleeding, pruritis and discharge if present.[5]

Surgical therapies involve Haemorrhoidectomy. It is performed by two methods viz Open excision (Milligan-Morgan) and Closed (Ferguson). Recent advances in open technique are diathermy, lasers and ultrasonic dissectors. Variations in Ferguson technique

involve the Ligasure coagulator which is postulated to seal the tissue with minimal thermal spread with resultant reduced postoperative pain.[6]

Open hemorrhoidectomy (Milligan and Morgan procedure) and closed hemorrhoidectomy (Ferguson procedure) are the most commonly used surgical techniques for excision of the hemorrhoid cushions. Since their invention, these remain the gold standard of surgical treatment.

In open technique, hemorrhoidal tissue is excised in the same way as is done in closed one but in former, incision is left open. Surgeons may choose open procedure when the conditions do not allow wound to close or likelihood of postoperative high infection.[7,8]

The rationale of study is to compare the postoperative outcomes of open versus closed hemorrhoidectomy so that patients may be treated with least complications and provide better surgical method to patients.

MATERIALS AND METHODS

This is a comparative study of 120 patients admitted through Surgical Outpatient department (SOPD) in surgical Department of Peoples Medical College Hospital Nawabshah. This study was done from December 2017 to December 2018. PMC Hospital is a tertiary care hospital where patients are admitted from entire Sind. All the patients admitted had complained of fresh rectal bleeding, Pruritis, prolapsed and constipation. On DRE, hemorrhoids were prolapsed and there was no any mass palpated in rectum. On proctoscopy, no any mass or polyp of rectum was found but only hemorrhoids at 3, 7, 11 o clock were found that were prolapsed but some with strangulation or thrombosis. Pre operative preparation was done and Open/ closed hemorrhoidectomy was done.

RESULTS

In this study, total 120 patients were included from all surgical wards of PMCH Nawabshah. They were divided into two groups. Group 1 included 60 (50%) patients who were operated for hemorrhoids with open hemorrhoidectomy and Group 2 included 60(50%) who underwent closed hemorrhoidectomy as is shown in Pie chart below.

In Group 1, 60 patients were operated and Group 2 also included 60 patients. They were assessed keeping in view the postoperative ratio of complications.

Among Group 1, 25 (41.66%) patients complained of postoperative defecation pain. Only 13(21.66%) complained of postoperative bleeding. 10 (16.6%) patients were catheterized on operative day due to retention of urine. 2 (3.33%) came on follow up with complain of stenosis. 5(8.33%) came with stool incontinence and 2 (3.3%) and only 3 (5%) returned with delayed postoperative bleeding as is shown in table 1.

Among Group 2 patients, 18(30%) complained of pain during defecation after surgery. 12(20%) developed early postoperative bleeding. 9 (15%) patients were catheterized on the operative day due to difficulty in passing urine/ retention of urine. 12 (20%) came with stenosis postoperatively and 7 (11.6%) developed stool incontinence and there was only 2 (3.4%) cases of delayed postoperative bleeding in this group as is shown in table 2.

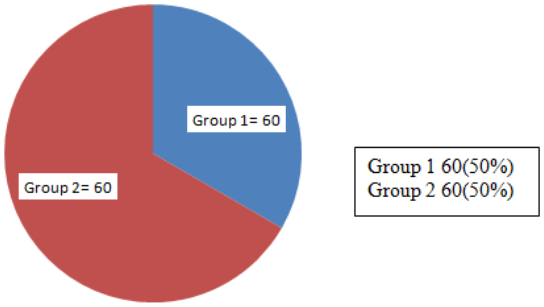

Chart No.1: Group wise patients details

Table 1: Group 1

S.No	Complications	No of patients	%tage
1	Painful defection	25	41.6%
2	Bleeding per rectum	13	21.6%
3	Urinary retention	10	16.6%
4	Stenosis	5	8.3%
5	Incontinence	5	8.3%
6	Delayed bleeding	2	3.6%
Total		60	100%

Table No.2: (Group B)

S.No	Complications	No of patients	%tage
1	Defecation pain	18	30%
2	Early Bleeding	12	20%
3	Urinary retention	9	15%
4	Anal Stenosis	12	20%
5	Incontinence	7	11.6%
6	Delayed bleeding	2	3.4%
Total		60	100%

DISCUSSION

Hemorrhoids are the one of the common ano-rectal disorder. Its prevalence is 39% of whom only 44.7% develop symptoms. These may be external or internal depending on its relation with dentate line. Goligher classified them into four grades that are most important to diagnose and choose the procedure of surgery.[9]

The criteria for ideal operation in any disease should be with low recurrence, minimum pain postoperatively and safe. Conventional hemorroidectomy is still considered to be the gold standard method in this regard. It has only 2% of recurrence rate. However, it has also some complications such as pain, perineal discharge and irritation.[10]

One study showed rate of fecal incontinence upto 17% and 22% in another study but in our study it is only 8.3% and 11.6% in Group 1 and 2 patients respectively. Postoperative painful defecation was 30% after closed and 41.6% after open hemorroidectomy[11]. One study showed that 14% of patients were reported to develop urinary retention and this study showed little difference for urinary retention to both groups of patients 15% in Group 2 and 16.6% in Group 1 of patients[12]. One international study shows the low incidence of postoperative bleeding after closed and a little bit higher incidence after open method. Same is found in our study. 21.6% after open and 20% after closed hemorrhoidectomy. Less than 4% presented with delayed postoperative bleeding after both procedures.[13]

CONCLUSION

Our study concluded that the closed hemorrhoidectomy is the better option as compared to open one because of its capability of least postoperative complications.

Author's Contribution:

Concept & Design of Study:	Abdul Hakeem Jamali
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Final Approval of version:	Abdul Hakeem Jamali

Conflict of Interest: The study has no conflict of interest to declare by any author.

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