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Research Article

### A PROSPECTIVE STUDY TO KNOW THE RESULTS OF STAPLED HAEMORRHOIDECTOMY

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**Abstract:**

**Objective:** The aim of this study was to evaluate the results of third and fourth degree haemorrhoids with a new surgical procedure: also known as stapled haemorrhoidectomy (SH) or Procedure for prolapse haemorrhoids (PPH).

**Study design:** A prospective study.

**Place and duration:** In the Surgical Unit II of Jinnah Hospital Lahore for one year duration from January 2018 to January 2019.

**Methods:** This study was conducted on 32 patients admitted in surgical ward. The results studied were operation time, patient profiles, recurrence and postoperative complications.

**Results:** A total of 32 patients, 13 women (44%) and 19 men (56%) were operated. The median age was 36 years (range 23 to 64 years). The main indications were bleeding in 84.3 percent and haemorrhoidal prolapse in grade 4 (59.3%). The median duration of the procedure was 19 (15-34) minutes. Two patients had minor complications: bleeding in one patient and significant postoperative pain in the other.

**Conclusion:** However, this is a small study without long-term follow-up, but our experience with stapler haemorrhoidectomy confirms that it is a safe and effective procedure for prolapsed haemorrhoids.

**Keywords:** stapler haemorrhoidectomy (SH), haemorrhoid, postoperative complications, prolapsed haemorrhoid procedure (PPH).

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**INTRODUCTION:**

Haemorrhoids, "Piles", represent a fragmentation of Park ligand; this results in submucosal tissue forming the anal canal line by downward displacement of the anal canal. This prevents the prolapse of venous flow and causes a clinical entity known as haemorrhoid (Thomson WHF) [1-3]. Haemorrhoids should be examined to identify the symptoms of the anal bed. They are divided into four classes according to their seriousness. First-degree haemorrhoids are bleeding, but no prolapse. Second degree haemorrhoids usually show prolapse in defecation, but spontaneously return to the anal canal. Third-degree haemorrhoids require digital replacement and fourth-degree haemorrhoids consist of fixed tissue prolapse that cannot be digitally altered [4-5]. The anal mattress causes symptoms such as discomfort, itching, mucous secretion and bleeding, and may cause some discomfort to the patient. Treatment of Grade 1 and II haemorrhoids involves paying attention to intestinal habits and avoiding effort [6]. In addition, non-surgical interventions such as injection sclerotherapy, elastic band ligation, infrared coagulation and cryotherapy have been described<sup>7</sup>. The most appropriate treatment for stage III and IV haemorrhoids is surgical haemorrhoidectomy, with the exception of guided duplex ligation of haemorrhoidal vessels [7]. This procedure involves removal of the haemorrhoidal pads with closure of the resulting wound. Basic haemorrhoidectomy (SH) or haemorrhoid prolapse procedure (PPH) for the treatment of haemorrhoids discovered by Autonio Longo in 1998 as a new technique. This study was performed to examine patient profiles, length of hospital stays, postoperative complications and recurrence.

**MATERIALS AND METHODS:**

This prospective study was held in the Surgical Unit II of Jinnah Hospital Lahore for one year duration from March 2018 to March 2019. 47 patients with third and fourth grade haemorrhoids were observed (18 and 29,

respectively). Finally, 32 patients were included in the study. Patients with previous haemorrhoidal surgery (4 patients), patients with contraindications for general anaesthesia (3 patients) and 8 patients who did not accept treatment were excluded from the study. The most common presentation (rectal bleeding) was rectal bleeding (84.3%), other symptoms were high in 13 patients (40.6%), distressed (53.1%) and pruritus (43%). Preoperative PR, proctoscopy and sigmoidoscopy were performed in all patients. All patients were operated under general anaesthesia. The surgical site was preserved and cleaned with an antiseptic povidone iodine solution. Stapled haemorrhoidectomy (SH) is presented as a new technique and is one of the most studied new surgical technologies in the treatment of prolapsed haemorrhoids (Andrew Hill et al.). This procedure uses an intraluminal circular staple gun to remove a circumferential mucosa ring from the upper anal canal. The technique involves placing a wallet chain about 3.5 cm above the threaded line and inserting the stapling gun into the anus. The stitch is clamped on the staple shaft, the gun is squeezed and fired, and pair of titanium staples are released in the tissue. The circular knife at the head of the gun cuts this unnecessary tissue like a rectal mucous bun. Postoperative complications were recorded (infection, sepsis and perianal edema), pain, bleeding, and recurrence. Postoperative pain was evaluated between 0 (painless) and 10 (worst pain) on the Analogue Visual Scale (VSA) on the first day of surgery. Most of the patients were discharged when parent analgesia was no longer required. Patients were treated one week and one month after surgery to record recurrence every three months for at least 15 months.

**RESULTS:**

Of the 32 patients with a mean age of 36 (23-64) years, 19 were male and 13 were female. The mean follow-up period was 15 (14-27) months. The mean hospital stay was 1.02 days. The mean operation time was 18 (15-37) minutes.

**Table I: Post-Operative Pain by Visual Analogue Score VAS n=32**

Days	n=1	n=31
1 <sup>st</sup> Day	7.5(5-8)	2.1(0.2-3)
2 <sup>nd</sup> Day	5(3-7)	1.2(0.1-2)
7 <sup>th</sup> Day	1.5(1-2.5)	0(0)

The main indications were bleeding (84.3%), haemorrhoids showed prolapse in 19 patients (59.3%) and thrombosis in 3 (9.3%) patients in the fourth grade. Minor complications occurred in 9.3 percent of

patients: acute postoperative pain in one patient, bleeding in one patient (3.1%), and significant postoperative painful visual score (VAS) requiring hospitalization. 3 days Postoperative pain was

significantly lower in patients with VAS score less than 2 (0.2-7.5) and requiring only medicines. In the first 24 hours, 31 patients (96.8%) required paracetamol to control pain, and one patient (3.1%) needed narcotic painkillers to control pain with a VAS score of 7.5 during the first two days postoperatively. The low VAS pain score in 96.8% of the patients was probably due to local infiltration of bupivacaine and adrenaline by 0.25% of the anal region. However, the San Marcos Group showed that 46% of patients experienced urgency and rectal pain showed a high VAS pain score at the level they abandoned because

they had to use narcotic analgesics for 7-10 premature days. However, this is the cause of high morbidity. The colorectal surgeon could not find a clear cause for the evaluated pain symptoms. One patient (3.1%) developed urinary retention on the day of surgery and was catheterized for 24 hours. Two patients had perianal skin edema. One patient had bleeding from the stapled anastomosis at the end of the procedure and no bleeding site was stopped with 2/0 C / Catgut. Minor postoperative complications are shown in Table II.

**Table II: Post-Operative Complications**

Pain of significant	3.1%
Urine retention	3.1%
Bleeding at anastomotic site	3.1%
Peri-anal Oedema	6.2%

Postoperative follow-up showed a significant reduction in the problems of patients with bleeding, perianal discomfort, pain and pruritus. However, 3 patients with grade 4 haemorrhoids and thrombosis

(9.3%) had a feeling of something in the anal region without any other subjective sensation. At three-month follow-up, 32 patients were satisfied with the treatment.

**Table III: Pre-Operative Presentation in our patients n=32**

Symptoms	=n	%age
Bleeding per Rectum	28	87.5
Prolapse Haemorrhoids:	32	
3 <sup>rd</sup> Degree	13	40.6
4 <sup>th</sup> Degree	16	50.0
4 <sup>th</sup> Degree with thrombosis	03	9.3
Peri-anal Discharge	13	40.6
Patients feeling discomfort	22	60.8

## DISCUSSION:

Many studies have analyzed the effectiveness and safety of the PPH [procedure for prolapsed haemorrhoid] (Longo A et al., MacRae HM et al., Pavlidis T et al., Wong LY et al., Sajid Sh et al., Lloyd. D and others). However, above all, the procedure is safe and well tolerated and appears to be effective, at least in the short term (Andrew Hill et al)<sup>10-11</sup>. However, a patient with severe anal pain needed strong narcotic painkillers for three days and was hospitalized<sup>12</sup>. In the assessment made by a chief consultant, we cannot find the cause of this intense pain. One patient had bleeding from the stapled anastomosis postoperatively and was treated with catgut 2/0 suture during the study. Bleeding is a rare event reported between 0.7 and 5 percent in different trials (Johannsson HO et al. Palimento D et al.

Cheetham MJ and Sutherland LM et al<sup>13</sup>. Bleeding was in position 3. Most of the patients (96.9%) were discharged within 24 hours. In a patient with severe anal pain, stapled haemorrhoidectomy can be used as a daily surgery after PPH remains in hospital for three days. Three patients with a history of fourth-degree haemorrhoid and thrombosis were done with PPH with a success rate of 87.3% from GC et al<sup>14</sup>. They complained without having any symptoms in the anal region and were unsatisfied with PPH at one month follow-up. Different studies (Mehigan BJ et al., Ganio E et al, Rouse P et al. And Roswell M et al.) Reported that patients with definite hemorrhage had a short 18-minute anaesthesia<sup>15</sup>. This cannot be compared with this study, where the mean duration of anaesthesia is approximately 35 minutes. This difference may be due

to better equipped postoperative recovery facilities in another hospital.

### CONCLUSION:

Although this study is a small and limited follow-up, different studies around the world have shown the same basic finding showing the outcome of PPH. These are simple bleeding, easy and fast. Furthermore, although not painless, conventional excision is less painful than hemorrhoidectomy.

In addition to a scientifically valid economic analysis, it is clear that long-term outcomes can be expected before the general application of this technique, especially in patients with low socioeconomic conditions.

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