

# Early Post-Operative Complication of Stapled Haemorrhoidectomy

Complication of  
Stapled  
Haemorrhoidectomy

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## ABSTRACT

**Objective:** To determine the frequency of early post-operative complications of stapled haemorrhoidectomy.

**Study Design:** Descriptive study

**Place and Duration of Study:** This study was conducted at the Department of General Surgery, Bolan Medical Complex Hospital Quetta 11<sup>th</sup> February 2019 to 11<sup>th</sup> August 2019.

**Materials and Methods:** One hundred and twenty six patients were observed. Stapled haemorrhoidectomy was performed by senior consultant's surgeons having a minimum of five year post-fellowship experience. In all patients, parenteral antibiotic dose was given at the time of induction of anesthesia. Acute urinary retention and constipation was noted in every patient according to the operational definitions.

**Results:** The mean age was 41±10.22 years and 40% patients were male and 60% patients were female. More over 23% patients had acute urinary retention while 10% patients had constipation.

**Conclusion:** The frequency of early post-operative complications i.e. acute urinary retention was 23% and constipation was 10% of stapled haemorrhoidectomy.

**Key Words:** Stapled, Hemorrhoidectomy, Degree hemorrhoids

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## INTRODUCTION

Anal cushions are prominences of anal mucosa generated by loose connective tissue, smooth muscle, arterial and venous arteries. Haemorrhoids are one of the most prevalent anorectal diseases. When there is no prolapsed anal tissue, there is painless rectal bleeding during defecation.<sup>1</sup> Haemorrhoids affect around 5% of the general population, and one in three cases require medical attention.<sup>2</sup> Patients with haemorrhoids may require surgical therapy in 10 to 15 percent of cases. In order to achieve a complete cure, surgery is the only therapeutic option for symptomatic haemorrhoids of grades III and IV.<sup>3</sup> Surgeons perform open Milligan-Morgan and closed Ferguson techniques.

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Complications, such as urine retention, hemorrhagic, constipation, protracted wound healing and substantial postoperative pain due to the broad exterior lesions on sensitive anal skin, are common with these procedures.<sup>4</sup> Milligan-Morgan has served as a yardstick by which all other approaches are measured.<sup>5</sup> Low-Invasive surgery One of the most significant developments in the treatment of haemorrhoids for many years is the use of stapling. Sir Antonio Longo<sup>6</sup> first used this approach in 1997. Excessive rectal mucosa can be removed using the Longo technique or Stapled Haemorrhoidectomy procedure. As a day care surgery, there is less bleeding and pain, as well as a quicker return to work.<sup>7</sup>

Acute urine retention, constipation, and post-operative discomfort are the most common consequences following haemorrhoidectomy. The incidence of acute urine retention ranges from 9.0% to 19.0%, and the incidence of constipation ranges from 9.0% to 9.5%.<sup>8,9</sup> Two years ago, we began routinely doing stapled haemorrhoidectomy. No published data from our hospital has compared our stapled haemorrhoidectomy with worldwide trials, therefore we don't know how it compares. Aiming to analyse early post-operative complications following stapled haemorrhoidectomy in Bolan Medical Complex Hospital Quetta, compared to published literature, is the rationale for this study. This study's findings will help to identify the most prevalent consequences of stapled haemorrhoidectomy following its completion.

After a stapled haemorrhoidectomy, it is important to identify the most common problems in order to work on preventing them in the future. Patients with haemorrhoids will be able to avoid these consequences by reducing their morbidity in this way.

## MATERIALS AND METHODS

This descriptive study was conducted at outpatient department of Surgery, Bolan Medical Complex Hospital Quetta, during from 11-2-2019 to 11-08-2019. Total 126 patients of both genders presented with grade III and IV hemorrhoids were included in this study. Patient's ages were ranging between 35-55 years. Patients with previous history of anorectal surgery, concomitant anorectal disorders, and patients with fecal incontinence were excluded. An informed consent was taken from all patients before including their data in the study. Stapled haemorrhoidectomy was performed by senior consultant's surgeons having a minimum of five year post-fellowship experience. In all patients, parenteral antibiotic dose was given at the time of induction of anesthesia. Acute urinary retention and constipation was noted in every patient according to the operational definitions. Data regarding confounder variables e.g. age, gender, grade of haemorrhoids, co-morbid condition like history of diabetes mellitus, hypertension and duration of surgery was also be collected. The collected information was entered using SPSS-20.

## RESULTS

There were 50 (40%) male patients and 76 (60%) female patients (Fig. 1). Seventy three (58%) patients were in age range 35-45 years, 53 (42%) patients were in age range 46-55 years. Mean age was  $41 \pm 10.22$  years. Eighty six (68%) patients had grade 3 haemorrhoids and 40 (32%) patients were had grade 4 haemorrhoids. Thirty five (28%) patients were diabetic and 47 (37%) patients were hypertensive. (Table 1) Mean duration of surgery was  $30 \pm 10.22$  minutes. Early postoperative complication was analyzed as 29 (23%) patients had acute urinary retention while 13 (10%) patients had constipation (Table 2). Stratification of Early post operative complication with grade of haemorrhoids showed no significant difference with p-value  $>0.05$  (Table 3)

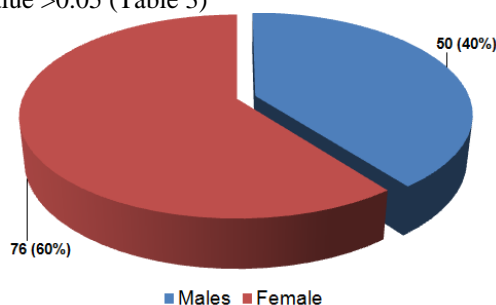


Figure No. 1: Gender-wise distribution

Table No.1: Baseline details of included patients

Variable	No.	%
<b>Age (years)</b>		
35 – 45	73	58.0
46 – 55	53	42.0
<b>Degree of Hemorrhoids</b>		
III	86	68.0
IV	40	32.0
<b>Co-morbidities</b>		
Diabetes	35	28.0
Hypertension	47	37.0

Table No.2: Frequency of early postoperative complications (n=126)

Complication	No.	%
Acute Urinary Retention	29	23.0
Constipation	13	10.0
No complication	58	67.0

Table No.3: Stratification of early postoperative complication with respect to degree of hemorrhoids

Complication	Grade		P value
	3	4	
Acute urinary retention			
Yes	20	9	0.9252
No	66	31	
Constipation			
Yes	9	4	0.9363
No	77	36	

## DISCUSSION

Haemorrhoids are a common anorectal disease that is defined as the symptomatic enlargement and/or distal displacement of anal cushions, which are prominences of the anal mucosa formed by loose connective tissue, smooth muscle, arterial and venous vessels. Haemorrhoids are one of the most common anorectal diseases that affect women. It is characterised by painless rectal bleeding during faeces, which may or may not be associated with prolapsing anal tissue. Haemorrhoids affect approximately 5% of the general population, with one-third of those who suffer from the condition requiring medical attention. The majority of people with haemorrhoids will eventually require surgical treatment for their haemorrhoids.<sup>2,3</sup> According to our findings, the mean age was  $41 \pm 10.22$  years. Patients were divided into two groups: 40% were male and 60% were female. The majority of patients had  $>23\%$  experienced acute urine retention, with just 10% experiencing constipation.

Another study conducted by Chalkoo et al<sup>8</sup> and Gura et al<sup>9</sup> found that post-operative pain, acute urinary retention, and constipation are the three most common complications of haemorrhoidectomy, with post-operative pain, acute urinary retention, and constipation being the most common complications. It has been

found that acute urine retention occurs in 9.0-19.0% of the population, while constipation occurs in 9.0-9.5% of the population. An further study carried out by Chik et al<sup>10</sup> found that 204 patients (100 men and 104 women; mean age, 49 years; age range, 20-82 years) had undergone haemorrhoidectomy throughout the study period. Stapled haemorrhoidectomy was conducted on 90 patients (44.1 percent), while closed haemorrhoidectomy was performed on the remaining 114 patients (55.9%). Seventy patients (34.3%) were operated on the same day they were admitted. One hundred and seventeen patients (57.4%) received surgery while under general anaesthesia, while 87 (42.6%) were operated on while under spinal anaesthesia. Retention of urinary excretion was seen in 31 patients (seven patients with Stapled haemorrhoidectomy and 24 patients with CH,  $p=0.009$ ). Logistic regression revealed that general anaesthesia ( $p=0.044$ ; odds ratio [OR], 2.43; 95% confidence interval [CI], 1.02-5.97) and SH ( $p = 0.046$ ; odds ratio [OR], 2.66; 95% CI, 1.02-7.00) were independent factors associated with a lower incidence of urinary retention than other variables. Another study, conducted by Oughriss et al<sup>11</sup>, revealed that one hundred and five patients (95%), with a mean age of 51 years, had encountered difficulties after the procedure. Among the most common early consequences of stapled haemorrhoidectomy were bleeding (1.8%), severe anal pain (2.3%), urine retention (0.9%), and sepsis (0.1%). Chronic anal pain (1.6%), suture dehiscence (1.6 percent), anal stricture (1.6%), anal fissure (0.9%), external thrombosis (0.9%), fistulae and intramural abscesses (0.9%), anal incontinence (0.3%) and haemorrhoidal disease symptoms persistence or recurrence were the most common late complications (3.2%).

According to Bhuiyan et al<sup>12</sup>, stapled haemorrhoidopexy is a safer option to open haemorrhoidectomy with less postoperative sequelae than open haemorrhoidectomy. Reactionary haemorrhage was discovered in 3.75% of patients, minor pain was discovered in 3.12% of patients, and residual prolapse was discovered in 1.25% of patients.

According to the findings of another study conducted by Panigrahi et al<sup>13</sup>, stapled hemorrhoidectomy is both safe and effective when compared to open hemorrhoidectomy in terms of postoperative pain, hospital stay, and early return to work.

## CONCLUSION

The frequency of early post-operative complications i.e. acute urinary retention was 23% and constipation was 10% of stapled haemorrhoidectomy in Bolan Medical Complex Hospital Quetta.

### Author's Contribution:

Concept & Design of Study:	Fida Ahmed Baloch
Drafting:	Shakeel Akbar, Mehreen Sattar
Data Analysis:	Bilal Elahi, Muhammad Yasir, Afnan Khan
Revisiting Critically:	Fida Ahmed Baloch, Shakeel Akbar
Final Approval of version:	Fida Ahmed Baloch

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

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