Original Article

Hemorrhoidectomy

Outcome of Stapled Hemorrhoidectomy versus Traditional Hemorrhoidectomy in Patients with Advance Hemorrhoids

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ABSTRACT

Objective: To evaluate the outcome of stapled hemorrhoidectomy versus traditional hemorrhoidectomy in patients presenting with advance hemorrhoids.
Study Design: Prospective study
Place and Duration of Study: This study was conducted at the Department of Surgery, University of Lahore Teaching Hospital Lahore from January 2018 to December 2018.
Materials and Methods: A total of 150 patients of both genders with ages 20 to 70 years who presented with advance hemorrhoids were included. Patient's demographical details including age, sex and residence were recorded. Patients were categorized in two groups; Group I consist of 75 patients and received stapled hemorrhoidectomy and Group II contains 75 patients and received traditional hemorrhoidectomy. Post-operative outcomes of both groups were recorded and findings compared between both groups. Follow-up was taken at 6 and 12 months after surgery to examine the recurrence rate.
Results: There were 45 (60%) male patients and 30 (40%) females in Group I and 48 (64%) patients were males and 27 (36%) were females in Group II. In Group I recurrence was found in 8 (10.66%) patients and in Group II 10 (13.33%) patients developed recurrence. Time duration of surgery was high in Group II patients 40.4±6.9 min. as compared to Group I 29±5.23 min. In Group I mean pain score was 6.23±2.24 and in Group II it was 7.2±1.45 according to the VAS. In group II 7 (9.33%) patients had postoperative pain and in Group I, 3 (4%) patients had postoperative pain. Post operative bleeding found in 8 (10.67%) patients in Group II and 2 (2.67%) in Group I.
Conclusion: Stapled hemorrhoidectomy is a safer and effectivetechnique with low rate complications as compared to traditional hemorrhoidectomy.
Key Words: Hemorrhoids, Stapled hemorrhoidectomy, Traditional hemorrhoidectomy, Outcome

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INTRODUCTION

Hemorrhoids are normal component of the anal canal and are composed predominantly of vascular tissue supported by smooth muscle and connective tissue. It functions as a compressible lining allows the anus to close completely. They become symptomatic through bleeding or prolapse. Gollingher classified haemorrhoids into four grades.[1] At least 50% of the people over the age of fifty have some degree of haemorrhoids formation. Generally 1st grade hemorrhoids are treated by changing diet, life pattern and using stool softeners. First and second degree haemorrhoids are generally treated by changing bowel habits, diet and lifestyles and by using stool softeners or laxatives. Sclerotherapy, infrared coagulation and rubber band ligation are the useful modalities for the treatment of 2nd degree hemorrhoids. Surgical management is a preferred treatment for 2nd and third grade hemorrhoids. Surgical hemorrhoidectomy is very useful and effective procedure for the treatment of advance hemorrhoids. Hemorrhoidectomy is generally performed by open and close technique. The Milligan-Morgan technique is basically used to dissect the hemorrhoid but the Ferguson technique is the advanced method of open surgical hemorrhoidectomy that involves wound closure with continuous suture to promote healing.[2] Surgical hemorrhoidectomy may cause postoperative pain, bleeding and wound infection as short term

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postoperative complications while anal fissure, stenosis and recurrence are the long term complications. Globally hemorrhoidectomy is the most performed surgical treatment for hemorrhoids.[2] Milligan-Morgan method is the most performed technique among all the surgical methods.[3]Surgical treatment (hemorr-hoidectomy) is considered a painful method for benign disorder with average hospital stay of 2 to 3 days.[4,5] Stapled hemorrhoidectomy is a advance technique for the treatment of hemorrhoids with very low rate of complications such as pain, bleeding and less hospital stay and shorter time duration of surgery.[6-10]

The present study was conducted aimed to examine the short term outcome and recurrence rate between stapled hemorrhoidectomy and traditional hemorrhoidectomy technique in patients with advance hemorrhoids.

MATERIALS AND METHODS

This prospective study was conducted at Department of Surgery, University of Lahore Teaching Hospital Lahore from 1st January 2018 to 31st December 2018. One hundred and fifty patients of both genders with ages 20 to 70 years presented with advance hemorrhoids were included. Patient's demographical details including age, sex and residence were recorded. Patient's previous history of hemorrhoidectomy, history of recurrence, patients with acute hemorrhoidal episodes, patients with anal stenosis and those who were not interested were excluded from the study.Patients were categorized into two groupsi.e. Group I consisted of 75 patients who received stapled hemorrhoidectomy, Group II also had 75 patients who received traditional hemorrhoidectomy. Post-operative outcomes such as hospital stay, surgery duration, postoperative bleeding and pain were recorded and the findings compared between both groups. Data was analyzed by SPSS 21.0. P value < 0.05 was set as significant. Mean±SD were applied.

RESULTS

45 (60%) patients were males and 30 (40%) were females in Group I and 48 (64%) patients were males and 27(36%) were females in Group II. In Group I (Stapled) 15 (20%) patients were ages 20 to 30 years, 25 (33.33%) patients were ages 31 to 40 years, 28 (37.33%) patients were ages 41 to 50 years, 7 (9.33%) patients were ages above 50 years. In Group II, 13 (17.33%) patients had ages 20 to 30 years, 24 (32%) patients were ages 31 to 40 years, 29 (38.67%) patients were ages 41 to 50 years and 9 (12%) patients had ages above 50 years (Table 1)

According to the outcomes between both techniques we found time duration of surgery was high in Group II patients was 40.4±6.9 min as compared to Group I 29±5.23 min. In Group I mean Hospital stay was 2.65±1.24 days and in Group II it was 5.45±3.62 days respectively. In Group I mean pain score was 6.23±2.24 and in Group II it was 7.2±1.45 according to the VAS. Post-operative bleeding was found in 8 (10.67%) patients in Group II and 2 (2.67%) in Group I (Table 2).At follow-up, in Group Irecurrence developed in 8 (10.66%) patients and in Group II10 (13.33%) patients developed recurrence (Table 3).

Table No.1:Frequency of age and gender

Variable	Group I (n=75)	Group II (n=75)
Gender		
Male	45 (60%)	48 (64%)
Female	30 (40%)	27 (36%)
Age (years)		
20 – 30	15 (20%)	13 (17.33%)
31 – 40	25 (33.33%)	24 (32%)
41 – 50	28 (37.33%)	29 (38.67%)
> 40	7 (9.33%)	9 (12%)

Table No.2: Outcomes findings between both groups

Variable	Group I	Group II	P value
Time Duration Surgery min	29+5.23	40.4±6.9	<0.05
Hospital stay (days)	2.65+1.24	5.45+3.62	<0.05
PO Pain VAS	6.23+2.24	7.2+1.45	N.S
PO Bleeding	2 (2.67%)	8 (10.67%)	<0.05

Table No.3: At final follow-up rate of recurrence between both groups

Recurrence	Group I	Group II	P value
Yes	8 (10.66%)	10 (13.33%)	N.S
No	67 (89.34%)	65 (86.67%)	

DISCUSSION

Many studies have been conducted to examine the outcomes of stapled hemorrhoidectomy as compared with traditional hemorrhoidectomy and different outcomes values were demonstrated.[11,12] The present study was also conducted to examine the outcomes of stapled hemorrhoidectomy versus traditional hemorrhoidectomy in patients with advance hemorrhoids. We found that 45 (60%) patients were males and 30 (40%) were females in Group I (Stapled) and 48 (64%) patients were males and 27(36%) were females in Group II (Traditional). These results showed similarity to some other studies in which male patients population was high 50 to 65% as compared to females.[13,14] In Group I (stapled) 15 (20%) patients were ages 20 to 30 years, 25 (33.33%) patients were ages 31 to 40 years, 28 (37.33%) patients were ages 41 to 50 years, 7 (9.33%) patients were ages above 50 years. In Group II, 13 (17.33%) patients had ages 20 to 30 years, 24 (32%) patients were ages 31 to 40 years, 29 (38.67%) patients were ages 41 to 50 years and 9

(12%) patients had ages above 50 years. A study conducted by Sachin et al[15] reported mean age of patients in stapled hemorrhoidectomy group was 39.50±9.82 years and in traditional hemorrhoidectomy the mean age of patients was 40.05±10.88 years.

In the present study, we found that time duration of surgery was high in traditional management 40.4±6.9 min as compared to stapled hemorrhoidectomy 29±5.23 min. These results were similar to some other studies in which patients who received stapled hemmorhoidectomy had a shorter time duration of surgery as compared to traditional hemorrhoidectomy.[16,17]

This study showed that patients who were treated with stapled hemorrhoidectomy had a shorter hospital stay 2.65±1.24 days than the traditional hemorrhoidectomy treated patients 5.45±3.62 days. These results were similar to the study conducted by Shukla et al[18] in which they reported that patients treated with stapled hemorrhoidectomy had a less hospital stay than the traditional hemorrhoidectomy treated patients P-value <0.05.

In the current study we found that in Group I mean pain score was 6.23±2.24 and in Group II it was 7.2±1.45 according to the VAS. Post operative bleeding was found in 8 (10.67%) patients in Group II and 2 (2.67%) in Group I. These results were similar to some previous studies.[19,20]In our study at final follow-up we found that in Group I (stapled)recurrence developed in 8 (10.66%) patients and in Group II (traditional) 10 (13.33%) patients developed recurrence. Arslani et al[21] reported that the recurrence rate was high in patients treated with stapled hemorrhoidectomy as compared to traditional hemorrhoidectomy Lee et al[22]showed similarity to our results regarding recurrence rate and reported no significant difference between both techniques.

CONCLUSION

The stapled hemorrhoidectomy technique is safer and effective with low rate of complications as compared to traditional hemorrhoidectomy and there was no significant difference observed regarding recurrence rate between both techniques.

Author's Contribution:

Concept & Design of Study:	Ahmad Raza Nsar
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Data Analysis:	Muhammad Aqil Razzaq, Amna Shahab
Revisiting Critically:	Ahmad Raza Nsar, Muhammad Tanvir Iqbal
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Conflict of Interest: The study has no conflict of interest to declare by any author.

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