Original Article

Comparison of Stapled V/S Open Haemorrhoidectomy in the Management of 3 and 4 Degree Haemorrhoids

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Introduction

Haemorrhoids are cushions of tissues within the anal canal containing blood vessels and their surrounding supporting tissue made up of muscles and elastic fibers. Haemorrhoids result from disruption of suspensory ligaments permitting downward prolapse of the cushions into and beyond the anal canal during defecation.[1] Anatomically haemorrhoid is a fold of mucous membrane and submucosa containing a varicosed tributary of superior rectal vein and artery, the tributaries of which lie in anal columns at 3, 7, 11 O'clock position when the patient is viewed in the lithotomy position.[2]

Haemorrhoids are classified in four degrees. First degree haemorrrhoids bleed but do not prolapse and are best treated by injection sclerotherapy. Second degree heamorrhoids prolapse during defecation but reduce spontaneously and they are treated by band ligation. Third degree haemorrhoids prolapse during defecation and have to be reduced manually whereas fourth degree haemorrhoids remain permenantly prolapsed and are irreducible.[3] Third and fourth degree haemorrhoids require surgery via either closed, open or stapled technique.[4]

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In open haemorrhoidectomy (Milligan Morgan) technique the skin over each haemorrhoid is grasped with an artery forceps, haemorrhoid is dissected off the internal sphincter and the base of vascular pedicle is transfixed and ligated. A bridge of skin and mucosa between each wound is left intact.[4] In stapled haemorrhoidectomy a stapling gun removes a circular strip of mucosa 3 – 4 cm above the dentate line along with stapling the mucosa at the same time. This technique was introduced by Antonio Longo in 1998.[5] Since then this technique has gained popularity for the treatment of 3 and 4 degree haemorrhoids in terms of less post-op pain, short hospital stay.[6] As this technique is becoming extremely popular we did a comparative study in our hospital between open and stapled haemorrhoidectomy for 3 and 4 degree haemorrhoids.

Aims and Objectives

The aims and objectives of this study were to compare the complications and outcome in terms of hospital stay, operative time, post-op complications and early return to work between stapled and open haemorrhoidectomy for 3 and 4 degree haemorrhoids.

Patients and Methods

This prospective randomized study was conducted at surgical unit I in Lahore General Hospital over a period of one year starting from Feb 2011to March 2012. A total of 200 patients were included in the study.

	Group A (100 Patients)	Group B (100 Patients)
Hospital Stay	4 Days	3 Days
Operative Time	45 Minutes	30 Minutes
Complications (bleeding, urinary retention)	6 Patients	1 Patient
Post Op Pain	Severe	Mild to Moderate

Patients were admitted via surgical outpatient department. Patients were randomly allocated to 2 groups (A and B). Each group containing 100 patients.

Inclusion Criteria

1) All male and female patients with 3 and 4 degree haemorrhoids were included in the study.

Exclusion Criteria

1) Patients with 1 and 2 degree haemorrhoids.
2) Patients with associated anorectal pathology
3) Patients who had undergone previous anorectal surgery.

Patients were randomly allocated into group A and B. Group A patients underwent open haemorrhoidectomy and group B patients underwent stapled haemorrhoidectomy. All the patients were operated either under spinal or general anesthesia. Patients were discharged on 2nd and 3rd post-operative day. They were followed up at 1 week, 2 weeks, 4 weeks, 2 months and 4 months interval.

Results

In group A patients (100) who underwent open haemorrhoidectomy 45 patients were female and 55 were male with the age ranging from 29-50years with a mean age of 41.36 years. Mean duration of hospital stay was 4 days, operative time 45 min to 1 hour and the patients complained of increased post-op pain by demanding more oral and intravenous analgesia. Complications like urinary retention occurred in 4 patients and bleeding from the anastomotic site occurred in 2 cases.

In group B patients (100) who underwent stapled haemorrhoidectomy 65 patients were male and 35 were females with age ranging from 32 to 55 years with a mean age of 42.33 years. Mean duration of hospital stay was 3 days, operative time 30 min and the patients complained of lesser post-op pain by less demands of oral and intravenous analgesia. Complications like urinary retention occurred in 1 patient and no bleeding from the anastomotic site was seen in any case.

Discussion

This is a prospective randomized trial comparing the results of open with stapled haemorrhoidectomy in terms of hospital stay, post-op pain, operative time and complications. In this study 100 patients were allocated in each group. The mean age of patients in group A is 41.36 yrs and group B is 42.33 yrs which is comparable to a study by Gravie et al in which the mean age was 41 years in open and 51 years in stapled haemorrhoidectomy patients.[7] Another study by Shallbay and Desoky report the mean age to be 49 years in stapled haemorrhoidectomy and 44 years in the open haemorrhoidectomy group.[8]

Mean hospital stay in group A is 4 days whereas in group B is 3 days which is again comparable to study by Roswell et al in which the mean hospital stay was 2.1 days in the open group and 1.1 day in the stapled haemorrhoidectomy group.[9] Patients in group A complained of severe pain and demanded more analgesia that group B patients which is again comparable to a study by Basdanis et al in which the maximum pain score was 3 reported in the open rather than stapled haemorrhoidectomy group.[10] Complications like bleeding from the anastomotic site occurred in 1 patient of group B patients which is again in comparison to a study by Correa – Rovelo in which bleeding occurred in 2.4% patients with stapled haemorrhoidectomy.[11]

Conclusion

Stapled haemorrhoidectomy is a safe and effective procedure for the treatment of 3 and 4 degree haemorrhoids as compared with open haemorrhoidectomy.

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