

COMPARISON OF STAPLED VERSUS MILLIGAN MORGAN HEMORRHOIDECTOMY IN HEMORRHOIDS SURGERY

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ABSTRACT

Background: Hemorrhoids are very widespread disease that cause pain by thrombosis, fear by bleeding and be a burden by pruritus. **Objective:** To compare the outcome in terms of bleeding, hospital stay, post operative pain and fecal incontinence among patients with 3rd and 4th degree hemorrhoids after stapled and Milligan Morgan techniques. **Methodology:** Study design: Quasi-Experimental study. Setting: Surgical unit-II Bahawal Victoria Hospital Bahawalpur. Study duration: From 1st June 2008 to 30th April 2009. Study Subject: 60 patients of 3rd and 4th degree hemorrhoids were included in this study and were divided in two groups A and B having 30 patients each. Patients of group A were treated by stapled and group B were treated by Milligan Morgan technique. Patient were followed up for 24 to 72 hours after operation and then weekly for two weeks on outdoor basis for assessment of outcome variables as relief of symptoms and development of complication. The data was entered and analyzed by SPSS version 10. **Results:** After treatment 28 (93%) patients of group A and 15 (50%) of group B has got relief from bleeding and other symptoms. 18 (60%) patients of stapled techniques group had hospital stay of 2 or <2 days. Only two (7%) patients of group A developed postoperative hemorrhage and a ligation of spurting vessel done, but 12 (40%) patients of the group B were found with post operative bleeding and intervention was done. Post operative pain requiring analgesia developed in 10 (33%) patients of group A and in 17 (56%) patients of group B. No. patients of any group developed fecal incontinence after treatment. **Conclusion:** Stapled hemorrhoidectomy has given very good results in relief of symptoms. Stapling technique can also result in severe pain, bleeding, fecal incontinence and other complications, but the chances of complications are less. Due to good relief of symptoms and less complications stapling technique should be the treatment of choice.

Key Words: Hemorrhoids, Stapled hemorrhoidectomy, Milligan Morgan Hemorrhoidectomy.

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INTRODUCTION

Hemorrhoids are dilated veins occurring in relating to anas.¹ Around 5% of general population suffers from symptoms of hemorrhoids and one third seeks medical treatment.² Males however, had a significantly greater incidence of symptomatic hemorrhoids than females. Hemorrhoidal tissue is a part of normal anatomy of rectum and anal canal.³

According to location, they can be divided as internal and external hemorrhoids. The diagnosis of anoarectal disorders is easy and conclusive by a thorough physical examination of anorectum, but it is inadequately performed in general clinical practice.⁴ The treatment of symptomatic hemorrhoids varies and ranges from conservative therapy involving dietary and life style changes to use of various pharmacological agents and creams, non operative procedures and operative hemorrhoidectomy.⁵ The treatment modalities are; Regularization of bowel function, Sclerotherapy, Infrared photocoagulation, Cryotherapy, Anal dilation, Pile stitching, Band ligation, Open or Milligan Morgan hemorrhoidectomy, Close hemorrhoidectomy and

Stapled hemorrhoidectomy.

Cryotherapy is very rarely performed. Sclerotherapy and rubber band ligation are out patient department procedures used for 1st and 2nd degree hemorrhoids. Milligan Morgan closed and stapled Techniques are commonly used exisional procedures.⁶ Stapled technique may cause rectal perforation, anastomotic dehiscence needing colostomy and even life threatening sepsis. Higher incidence of recurrent prolapse has been reported after stapled hemorrhoidectomy.⁷⁻⁹ Stapled Hemorrhoidectomy was 1st introduced by Longo in 1998.¹⁰ This techniques is considered to be more expensive than classic hemorrhoidectomy, but it is less painful and allows faster recovery.¹¹ The purpose of this study was to review the policy of managing the 3rd and 4th degree hemorrhoids surgically in a tertiary care hospital and establishing the best technique for satisfactory and permanent relief from symptoms and minimum incidence of post operative complications. The objective of current study was to compare the outcome in term of bleeding, pain, fecal inconsistency and hospital stay among patients of 3rd and 4th degree hemorrhoids treated by stapled and Milligan Morgan technique.

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METHODOLOGY

This quasi experimental study was carried out at surgical unit II of Bahawal Victoria Hospital Bahawalpur from 1st June 2008 to 30th April 2009. Sixty patients of diagnosed 3rd and 4th degree hemorrhoids in surgical outdoor fulfilling the inclusion criteria were included in the study and divided into two groups A and B. The diagnosis was clinical. All the patients were explained about the nature of the disease and the possible treatment option. They were informed about the study objection and the verbal consent was taken. The allocation to both groups was made as follows. The patients admitted in ward were registered in arranged list. The patients registered on even numbers were treated by the stapled technique and the patients on odd numbers were treated by Milligan Morgan technique. The patients were allocated in two groups in such a manner that they were matched as for as the variables like age, sex, socioeconomic status, residence, occupation and marital status so as to avoid the effect of confounders. In stapled hemorrhoidectomy a special gun with a circular stapler was used to remove the circumferential portion of rectal mucosa and sub mucosa following reanastomosis of the cut edges above the dentate line. In Milligan Morgan procedure the hamorrhoidal tissue was dissected by an inverted v shaped incision up to the pedicle and then tied by a suture, the prolapsed part was cut and the remaining was kept open. The patients were observed for 24 to 72 hours after operation for the relief of symptoms and complications and then were followed weekly for two weeks on outdoor basis. Data was entered and analyzed by using SPSS version 10.

RESULTS

Sixty patients of 3rd or 4th degree hemorrhoids were included in this study. Among these patients 35 (58.4%) were male and 25(41.6%) were females. The age of the patients was ranging from 20 to 50 years. The patients presented with a variety of symptoms including bleeding per rectum in all 60 patients (100%), prolapse in 60 (100%), constipation in 54 (90%), discharge in 30 (50%), itching in 24 (40%) and pain was found in 20 (33%) of patients (Table I).

After the treatment 28 (93%) patients got relief from bleeding in group A (stapled technique) and 15 (50%) patients of group B (Milligan Morgan technique). (P<0.05) (Table II).

Regarding the hospital stay 18 (60%) of stapled group took a hospital stay of <2 days but in Milligan Morgan group only 6 (20%) patients took stay of <2 days. (P<0.05) (Table III).

Only 2 (7%) patients of group A developed post operative bleeding requiring surgical intervention, but in group B, 12 (40%) patients developed bleeding and the surgical intervention was done. (P<0.05). (Table IV). In group A (stapled) 10 (33.33%) patients developed postoperative pain requiring analgesia while in group B (Milligan Morgan) 17 (56.66%) patients developed postoperative pain and analgesia was given. (P<0.05) (Table V).

There was no patient found with development of post operative fecal incontinence in any group.

Table I: Mode of presentation

Symptoms	No	Percentage
Bleeding/rectum	60	100
Prolapse	60	100
Constipation	54	90
Discharge	30	50
Itching	24	40
Pain	20	33

Table II: Post operative relief of bleeding

Variable	Operation technique		
	Stapled technique (30)	Milligan Morgan	Total
Relief of bleeding			
Yes	28 (93%)	15 (50%)	43
No	2 (7%)	15 (50%)	17
Total	n1= 30	n2= 30	60

P<0.05, table value 1.96, calculated 2SE=20.49

Table III: Comparison Of Post Operative Hospital Stay

Variable	Operation technique		
	Stapled technique (30)	Milligan Morgan technique (30)	Total
<2 Days hospital stay			
Yes	18 (60%)	6 (20%)	24
No	12 (40%)	24 (80%)	36
Total	n1= 30	n2= 30	60

P<0.05, table value 1.96, calculated 2SE=23.09

Table IV: Post operative bleeding requiring surgical intervention

Variable	Operation technique		Total
	Stapled technique (30)	Milligan Morgan technique (30)	
Post Operative bleeding needing intervention			
Yes	2 (7%)	12 (40%)	14
No	28 (93%)	18 (60%)	46
Total	n1=30	n2=30	60

P<0.05, table value 1.96, calculated 2SE=20.16

Table V: Post operative pain requiring analgesia

Variable	Operation technique		Total
	Stapled technique (30)	Milligan Morgan technique (30)	
Post opt pain requiring analgesia			
Yes	10 (33.33%)	17 (56.66%)	27
No	20 (66.66%)	13 (43.33%)	33
Total	n1=30	n2=30	60

P<0.05, table value 1.96, calculated 2SE=24.97

DISCUSSION

Many theories have coined the etiopathogenesis of hemorrhoids including venous varicosities of the anus, vascular hyperplasia in the hemorrhoidal vascular tissue, and a mucosal prolapse of the anal canal mucosa resulting in elongation and kinking of the upper and middle hemorrhoidal vessels.¹² In this study, 60 patients were included divided in two groups A & B randomly. The age of the patients ranged from 20 to 50 years. Majority of the patients belonged to the age group of 30 to 40 years.

This is concordant with a study by Nahas and Sobrado.¹³ Out of the 60 patients 35 (59%) were male and 25 (41%) were females. This is contradictory to the study of Robbin who concluded that men and women were equally effected.¹⁴ Although the cost of the stapler device is still relatively high, the length of hospital stay and the period of the patient's incapacity for work are certainly shortened. The absence of local care and less postoperative pain are clear advantages to the patients stapled hemorrhoidectomy results in significantly lesser immediate postoperative pain than conventional excision techniques (by 2 to 3) level on visual analogue scale and offers more comfort to the patient.¹⁵⁻¹⁷

Postoperatively, in group A 28 (93%) patients who received stapled hemorrhoidectomy got relief of

bleeding while in group B 15 (50%) patients got relief of bleeding. This similar to a study by Racalbuto and his colleagues.¹⁵ Regarding the hospital stay after treatment, in first group (stapled) 18 (60%) were able to go home within less than 2 days while in second group (Milligan Morgan) 6 (20%) patients were able to go home within the same period. It was also found in another study by Shalaby and Desoky.¹⁶

Regarding the post operative bleeding, stapling group was having 2(7%) patients developing post operative bleeding needing intervention, while in Milligan Morgan technique group 12 (40%) patients developed post operative bleeding and surgical intervention was required to control the bleeding. This was also observed in a study by Iqbal, and Amin in Pakistan.¹⁷ In our study we observed in group A 10 (33%) patients needed analgesia while in group B 17(56.66%) patients demanded analgesia for post operative Pain.

The results of development of post operative bleeding needing surgical intervention and post operative pain needing analgesia were also found in study by Iqbal as quoted above. The result about pain development in two techniques was also observed similar in study by Ganio and colleagues.¹⁸ and Palimento and his Colleagues.¹⁹ In a randomized trial of sutured vs stapled close hemorrhoidectomy done by Khalil and Coworkers,²⁰ it was reported that despite higher cost and difficult access, stapled haemorrhoidectomy resulted in less postoperative pain, faster wound healing and greater patient satisfaction than the open sutured technique.

CONCLUSION

The results of our study strongly supports the stapled technique of hemorrhoidectomy as more beneficial and efficacious than Milligan Morgan technique of hemorrhoidectomy. The study also supports that the stapled technique should be the treatment of choice for 3rd or 4th degree hemorrhoids. It is fact that stapled procedure is costly and not still easily accessible. There are also threats of fecal incontinence, postoperative bleeding, pain, septicemia and chances of development of fistulae after stapled procedure. Milligan Morgan technique is easily accessible and commonly used, but the incidences of development of complications like unsatisfactory relief of bleeding, post operative hemorrhage, severe pain, late healing of wound and infections are very common. It can be used for 1st and 2nd degree hemorrhoids, non affording patients or in patients

willing for open procedure. Stapled hemorrhoidectomy is a safe procedure. It has definite advantages over open procedure in relief of symptoms and postoperative complications.

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