EFFICACY OF STAPLED HAEMORRHOIDECTOMY VS. CONVENTIONAL HAEMORRHOIDECTOMY (A LOCAL EXPERIENCE)

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ABSTRACT

Haemorrhoids are one of the most common anorectal conditions affecting 50% population over 50 years. The Milligan-Morgan open haemorrhoidectomy is the most widely used surgical technique and considered as the gold standard. Circular stapler Haemorrhoidectomy was first described by Lango in 1998 as an alternative to conventional excisional haemorrhoidectomy. The early small randomized controlled trials of Stapled vs. open haemorrhoidectomy had shown its effectiveness.

Objective: The objective of this study was to compare the efficacy of stapled haemorrhoidectomy with that of Milligan-Morgan in terms of pain, hospital stay and return to physical activity.

Study design: It was an experimental study.

Material and methods: This study was conducted in Department of Surgery Khyber Teaching Hospital; Peshawar from March 2011 till December 2011and spanned over 10 months.

Sample selection: In this study 30 patients were selected with 3rd degree haemorrhoids after undergoing DRE and proctoscopy in OPD and informed consent was taken. Purposive, non-probability sampling was employed and after initial selection patients were randomly divided into two groups and complete Performa was filled.

Inclusion criteria: Male and female patients with 3rd and 4th degree haemorrhoids were included in this study.

Exclusion criteria: Patients with systemic diseases like cardiac, renal/hepatic etc. Already operated haemorrhoids. Patients with associated anorectal disorders like Fistula in ano, fissures and carcinoma.

Study design: Quasi-experimental study.

INTRODUCTION

The treatment of anal pathology is present in ancient Egyptian papers from 1700 BC and also mentioned in Indian medieval history. There are descriptions of proctological healing about 500 BC[1]. Hippocratic treatises (460 BC) provide detail information on clinical presentation and surgical management[2]. In Roman medieval literature, Celsius (25BC -14AD) describes ligation and excision of haemorrhoids[3]. Galen (131-201 AD) also described ligature excision of haemorrhoids. Retention of urine was described by Romans as a complication of haemorrhoidectomy[3]. A number of descriptions of treatment of Haemorrhoids are also found in Arabic literature (850-1050 AD)[4]. After Arab dominance in the "Art of surgery" from 1200AD-1500AD, the master surgeon of Europe dictated the evaluation of surgical practice of Haemorrhoids[5].

Despite the major advance in Colorectal disease, the management of Haemorrhoidal disease has changed over the last few decades[6,7]. Surgical haemorrhoids is reserved for 3rd, 4th degree haemorrhoids[8,9].

Milligan- Morgan open haemorrhoidectomy is the commonest procedure done[10] and Ferguson closed haemorrhoidectomy technique with low complications and excellent Results[11].Severe post-operative pain may occur with wide excision of the skin in both procedures[6,12].

To reduce post-operative pain in open surgical procedure several modifications have been advised which include anal dilatation, lateral anal sphincterotomy, local anaesthetics and metronidazole[13,14] but all these effects have not got significant acceptance in pain Reduction[15]. Stapled haemorrhoidectomy is also called PPH (Procedure for Prolapsed Haemorrhoids) and was introduced in 1993.This method was refined by Lingo in 1998[16].

A transverse anal circular stapler gun is used to excise complete circular strip of rectal mucosa above the dentate line which lifts the prolapsed haemorrhoidal tissue removing the abundant mucosa and stapling of the end branch of Superior Haemorrhoidal Artery[16,17]. In various studies the post-operative pain was far less in PPH than open surgery[6,12,18,19,20,21].

Several randomized trials have shown a decrease in post-operative pain, analgesic requirement, operat-

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ing time and short recovery and early return to normal life [22,23]. Nazeem Afridi in his study showed less post-operative pain and early return to normal life[24].

MATERIAL AND METHODS

The Quasi-experimental study was conducted at Department of Surgery, Khyber Teaching Hospital; Peshawar from March 2010 to December 2011. A total of 50 patients were selected from general Opd. A Performa was designed to record demographic, presenting complaints, degree of piles, operating time and post-operative complications. 3rd and 4th degree haemorrhoids were included in the study. Patients with systemic diseases or already operated for haemorrhoids, fistula in ano or other associated anorectal pathologies were excluded.

Post-operative evaluation was done and complete history, physical examination, digital rectal examination and proctoscopy were done in all patients. Informed consent and pre-operative antibiotic prophylaxis were given. Operating time and post-operative complications were reviewed. On discharge Diclofenac sodium and local anaesthetic with Isphagol were given to all patients.

RESULTS

In this study 38% of the patients were in the 46-55 years age group and the mean age was 43.2 ± 7.3 and 40.8 ± 7.5 in open and PPH group.

Total numbers of males in both age groups were 54% and female 46%. Bleeding PR was the most common presenting complaint in 66.02% and pain in 60.8%. Discharge and swelling in 38.02%. Bleeding PR and painful defecation were highest in combination.

Table-1 Distribution of cases by age

Age	SH		OH		Total	
	n	%	n	%	n	%
18.25	4	16.0	5	20.0	9	18.0
26-35	3	12.0	4	16.0	7	14.0
36-45	3	12.0	4	16.0	7	14.0
46-55	11	44.0	8	32.0	19	38.0
56-65	4	16.0	4	16.0	8	16.0
	25	100.0	25	100.0	50	100.0

P > 0.05
Mean Age = 43.2 + 7.3 40.8 + 7.5
SH = Stapled Haemorrhoidectomy group
OH = Open Haemorrhoidectomy

Table-2 Distribution of Cases by Sex

Sex	SH		OH		Total	
	n	%	n	%	n	%
Male	15	60.0	12	48.0	27	54.0
Female	10	40.0	13	52.0	23	46.0
Total	25	100.0	25	100.0	50	100.0

P > 0.05
SH = Stapled Haemorrhoidectomy group
OH = Milligan-Morgan Haemorrhoidectomy

The most common indication was prolapse, in 85% cases prolapse was reducible while in 10% there was no prolapse.

First defecation occurred in PPH patients. 1.6 day ± 1.0 vs. 2.1 ± 1.0 in open haemorrhoidectomy group. The feeling of pain was less in PPH group than in open haemorrhoidectomy group (P<0.001). Mean scales were 2.66 ± 1.2 and 4.2 ± 2.2 in PPH vs. OH group. Hospital stay was 4-5 days in OH group and 1-2 days in PPH group.

DISCUSSION

Our study shows that stapled haemorrhoidectomy is a safe and well tolerated procedure with a significant improvement in post-operative pain control and earlier return to normal activities. We've shown that the approach is significantly quicker than the classical haemorrhoidectomy and is better tolerated with reduced post-operative pain. The VAS score (<3) is well accepted and the score of Milligan-Morgan haemorrhoidectomy group more high[25].

In this study, all the patients in SH group were treated according to same basic protocol involving

Table-3 Comparing PPH and Conventional Haemorrhoidectomy

Patients Consideration	PPH	Conventional Haemorrhoidectomy
Post-operative pain	Less painful	More painful
Recovery time	Less recovery time	More recovery time
Length of Procedure (Operating Time)	Less Operating Time	More operating time
Length of Hospital Stay	Shorter Stay	Longer
Complication from surgery	Less complications	More complications
Patient Satisfaction	More satisfaction	Less satisfaction
Patient acceptance	More	Less

Table-4 Incidence of Complications During the Follow-Up Period

Characteristics	SH n (%)	OH n (%)	Total
Continence problem	2(8%)	2(8%)	16%
Postoperative bleeding	0(0%)	2(8%)	8%
Urine retention	1(4%)	1(4%)	8%

reduction of prolapsed piles and resection of the glandular mucosa while preserving internal haemorrhoidal piles and placing stapled line above the internal piles and suture if necessary.

The main inconvenience was noticed with OH than SH group in earlier bowel function than SH while some authors showed no difference in bowel opening[26]. Like other internal studies our study also showed significantly less post-operative pain[27,28]. In our study we used topical anaesthetic for local pain before defecation while some studies showed no need of topical anaesthetics after stapled haemorrhoidectomy.

The local studies also confirmed the efficacy of SH over OH[29]. In our study we looked the complication and patient related functions. Minor complications included rectal bleeding and perianal haematoma and faecal urgency which resolved conservatively. The post-operative bleeding to some extent is inevitable but was found more in OH than in SH group. The post-operative complications in our study were comparable to other studies in both SH and OH Group[13,30]. The quality of life post-operatively is slightly better in SH than in OH group while some suggest significant difference in both procedures [6,17] .

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