



Comparison of hemorrhoidectomy combined with lis and open hemorrhoidectomy.

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ABSTRACT... Objectives: To measure the effectiveness of addition of LIS with open haemorrhoidectomy in reducing post-operative pain. **Study Design:** Experimental study. **Setting:** Surgical Unit of DHQ Teaching Hospital Rawalpindi. **Period:** Jan-2016 to Nov-2017. **Material & Methods:** This study was conducted on total number of 60 patients (n=60) with 4th degree haemorrhoids. Patients were divided into two equal groups of 30. In group 1 open haemorrhoidectomy with LIS was done and group 2 open haemorrhoidectomy without LIS was done. **Results:** Mean pain score of 2.53 with SD of 0.681 was found in group 1 (open haemorrhoidectomy with LIS) as compared to mean pain score of 7.07 with SD of 1.112 in group 2 (open haemorrhoidectomy without LIS). P-value was 0.05. T-Test was applied and difference between the two groups was found statistically significant. **Conclusion:** Open haemorrhoidectomy with LIS reduces post-operative pain in patients.

Key words: Lateral Internal Sphincterotomy, Open Haemorrhoidectomy, Post-Operative Pain.

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INTRODUCTION

Pain is a common and most disturbing complication after hemorrhoidectomy. Number of techniques¹ have been devised to reduce post operative pain. Lateral internal sphincterotomy is one good technique. It reduces pain by reducing spasm of internal anal sphincter which is the main cause of pain.^{2,3} Initially anal dilatation^{4,5} was described by lords to overcome this spasm⁶ but un-intentional over-damage to internal sphincter leading to faecal incontinence limited its use especially in older patients.⁷

Many other ways to reduce spasm of sphincter to minimize post operative pain have been described e.g. Topical use of calcium channel blockers^{8,9} nitroglycerine^{10,11} and botulinum toxin.¹²

But all these methods of chemical sphincterotomy¹³ have their limitations due to their side effects e.g headache, local inflammation, difficulty of local application of cream.

The main aim of this study was to see the effec-

tiveness of lateral internal sphincterotomy when combined with open haemorrhoidectomy^{14,15,16} in reducing post operative pain.

MATERIAL & METHODS

Among patients with 4th degree hemorrhoids reporting to surgical unit, DHQ hospital between Jan-2016 to Nov-2017, 60 were included in this experimental study. Both patients over the age of 55 years and patients with other pathologies like fistula, fissure were not included in the study. Patients were randomized into two groups by lottery method. Written informed consent was taken from patients. In study group 1 classical Milligan Morgan hemorrhoidectomy with LIS was done. In control group 2 milligan Morgan hemorrhoidectomy without lateral internal sphincterotomy was performed. All the patients were operated in lithotomy position under spinal anaesthesia by the same surgeon. Operation was performed with the help of diathermy to secure good hemostasis and at the end of operation in group 1 lateral internal sphincterotomy was done. Lower portion of the lateral internal sphincter upto

the dentate line was cut through the open wound of hemorrhoidectomy on left side. Gause Pack with pyodine and lignocaine gel was placed in anal canal and T bandage applied. On first post operative day the anal pack was removed and sitz bath in warm water with pyodine was started. All the patients were given third generation cephalosporin and flagyl infusion, one doze pre operatively and two dozes postoperatively.

Postoperative pain was monitored by surgeon unaware of the groups by visual pain scale. Injection tramadol hydrochloride was used as analgesic. Pain score was noted three times a day and recorded for each patient. Monitoring was done for 3 days postoperatively then average pain score for each patient was calculated. Patients were discharged on 4th postoperative day and were called for follow up on 7th post operative day to see for any complication like fecal incontinence. Examination was done carefully on follow up by the operating surgeon to record the findings. Then these patients were followed once a month for 6 months to see for long term complications e.g. anal stenosis and long lasting pain. All the data was recorded on a pre-designed Performa. P-Value was set at 0.05. T- Test was used to see statistical significance. Data was analysed by SPSS 20 program.

RESULTS

Experimental study was conducted on 60 patients (n=60) divided in two groups with 30 patients in each. P-value was 0.05. data analysis was done by SPSS 20. In group 1 (open haemorrhoidectomy with LIS) mean age of patients was 42.50 y and in group 2 (open haemorrhoidectomy without LIS) mean age of patients was 42.90 y. Mean pain score in group 1 was 2.53 with SD of 0.681 where as in group 2 mean pain score was 7.07 with SD of 1.112. T-Test was applied and difference between two groups was found statistically. In group 1 only one patient developed incontinence for flatus in early post operative period and it settled during next 06 weeks.

	N	Minimum	Maximum	Mean
Age in Years	30	30	57	42.50
Valid N (listwise)	30			

Group-I. Open haemorrhoidectomy with LIS

	N	Minimum	Maximum	Mean
Age in Years	30	32	57	42.90
Valid N (listwise)	30			

Group-II. Open haemorrhoidectomy without LIS

Visual Pain Scale (O-10)	N	Min	Max	Mean	S.D
Valid N	30	1	4	2.53	0.681

Group-I. Mean pain score in open haemorrhoidectomy with LIS

Visual Pain Scale (O-10)	N	Min	Max	Mean	S.D
Valid N	30	5	9	7.07	1.112

Group-II. Mean pain score in open haemorrhoidectomy without LIS

DISCUSSION

In Pakistani community haemorrhoidal bleeding is a common problem in middle age group of both males and females. There are many surgical procedures to treat hamemorrhoids¹⁷ but in our country open milligan-morgan haemorrhoidectomy is mostly used.^{18,19,20} Whatever the surgical procedure is used pain is the most common complication.²¹

Lateral internal sphincterotomy through the haemorrhoidectomy wound relaxes the muscle and reduces its tone hence reduces pain as seen in our study.^{22,23,24} Different studies show effectiveness of LIS when combined with haemorrhoidectomy. M.W Raza et al²⁵ confirmed the effectiveness of LIS with haemorrhoidectomy. Similarly DK Das et al²⁶ gave same result in his study with minimal complications.

Amoroti²⁷ conducted study and combined LIS with milligan morgan haemorrhoidectomy and gave good results regarding post operative patient comfort. Same is the result of study conducted by Mukadam & Masu.²⁸

A prospective was conducted by Kenlos I²⁹ and he found that combination of LIS with haemorrhoidectomy significantly reduces post operative pain of the patients. Contrary to the results shown by the above mentioned studies which confirm the results of this study, Khubchandani IT³⁰ showed in his study that adding LIS to haemorrhoidectomy has no effect on post operative pain. He also reported increased incidence of fecal incontinence³¹ in his patients. However our study confirms the results of the studies showing benefits of open haemorrhoidectomy with LIS with minimal complications.

CONCLUSION

Milligan morgan haemorrhoidectomy with LIS is an effective method of significantly reducing post operative pain without any complications.



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AUTHORSHIP AND CONTRIBUTION DECLARATION

Sr. #	Author(s) Full Name	Contribution to the paper	Author(s) Signature
1	Sajid Rashid	Principal investigator, Wrote all parts of article except introduction and references.	 Dr. Sajid Rashid Principal Investigator Sajid Rashid Hospital Faisalabad, Pakistan
2	Naveed Malik	Wrote introduction and references. Took part in data collection.	 Dr. Naveed Ashiq - Malik MBBS, FCPS Sajid Rashid Hospital Faisalabad, Pakistan