

Comparison of Pain Score in Open Hemorrhoidectomy with and without (Lateral Internal Sphincterotomy) LIS

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Abstract: ***Objectives:** To measure the effectiveness of addition open haemorrhoidectomy with LIS in reducing post - operative pain. **Material and Methods:** This study was conducted on total number of 80 patients (n=80) with 3rd & 4th degree haemorrhoids. Patients were divided into two equal groups of 40. In group 1 open haemorrhoidectomy without LIS was done and group 2 open haemorrhoidectomy with LIS was done. **Results:** Mean pain score of 7.07 with SD of 1.112 was found in group 1 (open haemorrhoidectomy without LIS) as compared to mean pain score of 2.53 with SD of 0.681 in group 2 (open haemorrhoidectomy with LIS). P - value was 0.05. **Conclusion:** Open haemorrhoidectomy with LIS decreased post - operative pain in patients.*

Keywords: Open Haemorrhoidectomy, Lateral Internal Sphincterotomy LIS, Post-Operative Pain, Haemorrhoids, Pain Management

1. Introduction

Pain is a most common and disturbing complication after hemorrhoidectomy. Number of techniques has been devised to reduce post operative pain. Lateral internal sphincterotomy (LIS) is good technique. It decreases pain by reducing spasm of internal anal sphincter which is the main cause of pain. Initially anal dilatation was described by lords to overcome this spasm but un - intentional over - damage of the internal sphincter leading to faecal incontinence limited its use especially in older patients. Many other ways to reduce spasm of sphincter to minimize post operative pain have been described e. g. Topical use of nitroglycerins, botulinum toxin and calcium channel blockers. But all these methods of chemical sphincterotomy have their own limitations due to their side effects e. g headache, difficulty of local application of cream, local inflammation. The main aim of this study was to see the effectiveness of lateral internal sphincterotomy (LIS) when combined with open haemorrhoidectomy in decreasing post operative pain.

2. Material & Methods

Among patients with 3rd & 4th degree hemorrhoids reporting to Mahatma Gandhi Hospital, Jaipur between march - 2022 to march 2023, 80 were included in this study.

Both patients over the including age group was 30 years to 55 years.

Excluding criteria: fistula, fissures were not included in the study.

Patients were randomized into two groups by lottery method. Written informed consent was taken from all patients and first relatives. In study group 1 classical

Milligan Morgan hemorrhoidectomy without LIS was done. In control group 2 milligan Morgan hemorrhoidectomy with lateral internal sphincterotomy was performed. All the patients were operated in lithotomy position under spinal anaesthesia by the same surgeon and resident doctors. Operation was performed with the help of diathermy to secure hemostasis and at the end of operation in group 2 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 or right side. Gause Pack with povidine and iodine 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 povidine iodine was started. All the patients were given third generation cephalosporin. one dose pre operatively and two doses postoperatively. Postoperative pain was monitored by surgeon unaware of the groups by visual pain scale. Injection tramadol was used as analgesic. Pain score was noted 3 times a day and recorded for each patient. Monitoring was done for three days postoperatively then average pain score for each patient was calculated. Patients were discharged on 2nd 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 and resident doctors to record the findings. Then these patients were followed once a month for six months to see for long term complications e. g. long lasting pain and anal stenosis.

3. Results

Experimental study was conducted on 80 patients (n=80) divided in 2 groups with 40 patients in each. P - value was 0.05. In group 1 (open haemorrhoidectomy without LIS) mean age of patients was 42.90 y and in group 2 (open

haemorrhoidectomy with LIS) mean age of patients was 42.50 y. Mean pain score in group 1 was 7.07 with SD of 1.112 where as in group 2 mean pain score was 2.53 with SD of 0.681. T - Test was applied and difference between 2 groups was found statistically.

Group 1: Open haemorrhoidectomy with LIS

	N	Minimum	Maximum	Mean
Age in years	40	30	57	42.50
Valid N (listwise)	40			

Group 2: Open haemorrhoidectomy without LIS

	N	Minimum	Maximum	Mean
Age in years	40	32	37	42.90

Group 1: Mean pain score in open haemorrhoidectomy with LIS

Visual pain scale (0 - 10)	N	Min	Max	Mean	S. D
Valid N	40	1	4	2.53	0.681

Group 2: Mean pain score in open haemorrhoidectomy without LIS

Visual pain scale (0 - 10)	N	Min	Max	Mean	S. D
Valid N	40	5	9	7.07	1.112

4. Discussion

In Indian community haemorrhoidal bleeding is a common problem in middle age group of both males and females. There are many surgical procedures to treat hamemorrhoids but in our country ope milligan - morgan haemorrhoidectomy is commonly used. Whatever the surgical procedure is used pain is the most common complication. Lateral internal sphincterotomy through the haemorrhoidectomy wound relaxes the muscle and decreases its tone hence reduces pain as seen in our study. Different studies show effectiveness of LIS when combined with haemorrhoidectomy.

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