Journal of Research in Medical and Dental Science
2022, Volume 10, Issue 2, Page No: 142-145

Available Online at: www.jrmds.in
eISSN No. 2347-2367: pISSN No. 2347-2545

The Frequency of the Pain after Hemorrhoidectomy with or without Lateral Sphincterotomy

Ihsanullah Sial[1], Rajesh Kumar[2] , Dharmoo Arija[3], Sadaf Jabeen[1], Rekha Melwani[1], Ghulam Sarwar[4], Alina Mirza[5], Adnan Anwar[6]*

[1]Altibri medical college and hospital, Pakistan
[2]Jinnah Post Graduate Medical Center, Pakistan
[3]Ghulam Muhammad Mahar Medical College, Sukkur, Pakistan
[4]Bhitai Dental and Medical College
[5]Hayat Institute of Rehabilitation sciences
[6]Hamdard College of Medicine and Dentistry, Pakistan

ABSTRACT

Objective: Hemorrhoids is one of the ancient diseases in the world and very painful to the patient. Open hemorrhoidectomy remains a surgical therapy for hemorrhoids worldwide. The aim of the study was to evaluate the frequency of postoperative pain and rectal bleeding in open hemorrhoidectomy with and without lateral sphincterotomy.

Methodology: This is a prospective case control study was conducted in surgical unit-I of Ghulam Mohammad Mahar Medical College (GMMC), Sukkur. The ethical approval was taken from the Institutional Research and Ethical Committee. The duration of the study was about 2 years from Nov 2016 to Dec 2018. A total of 120 patients were chosen for this study in which 77 were males and 43 were females having grade 2nd, 3rd and 4th hemorrhoids. Statistical Package for the Social Sciences (SPSS) version 20 was used to analyze the data.

Results: Results of this study shows that 60 patients out of 120 underwent only hemorrhoidectomy and remaining 60 were gone for hemorrhoidectomy with LIS under general or spinal anesthesia. Majority of them were males about 64.2% and 35.8% were female. The age ranges from 18 to 50 years. About 60 (50.0%) patients out of 120 had 3rd degree hemorrhoids. Post-operative pain was experienced on subsequent visits after 2nd, 7th and 30th day after surgery. The pain was measured through Visual Analog Scoring (VAS). .It also shows the bleeding per rectal at different intervals after the open hemorrhoidectomy and hemorrhoidectomy with LIS. It also observed that at the end of 30th day, postoperative wound healing was completed for both the surgeries.

Conclusion: This study concludes that addition of internal sphincterotomy to open hemorrhoidectomy was an effective method to lessen post-operative pain and complications whereas it reduced the duration of complete wound healing without any considerable injury.

Key words: Open hemorrhoidectomy, Hemorrhoids, Post-operative pain, Internal sphincterotomy, Wound healing

HOW TO CITE THIS ARTICLE: Ihsanullah Sial, Rajesh Kumar, Dharmoo Arija, Sadaf Jabeen, Rekha Melwani, Ghulam Sarwar, Alina Mirza, Adnan Anwar, The Frequency of the Pain after Hemorrhoidectomy with or without Lateral Sphincterotomy, J Res Med Dent Sci, 2022, 10 (2):142-145.

Corresponding author: Adnan Anwar

e-mail✉**:** anwaradnan32@gmail.com

Received: 29-Jan-2022, Manuscript No. JRMDS-22-52764;

Editor assigned: 31-Jan-2022, PreQC No. JRMDS-22-52764 (PQ);

Reviewed: 14-Feb-2022, QC No. JRMDS-22-52764;

Revised: 18-Feb-2022, Manuscript No. JRMDS-22-52764 (R);

Published: 25-Feb-2022

INTRODUCTION

Hemorrhoids are vascular structures in the anal canal [1,2]. Normally, they are like cushions that help to control stool [3]. Upon swollen or reddened they convert into a disease called "hemorrhoids" [2]. Symptomatic hemorrhoids are supposed to affect approximately 50% of the US population at some time during their lives, and about 5% of the population can be affected at any time [4]. The same incidence of the situation can occurs in both sexes, with high rates of incidence is found between

45 and 65 years of age. They are more frequent in Caucasians and those of higher socioeconomic status [5]. In the general population, up to 40% of high incidence rate with hemorrhoids was found during colonoscopy [6], and 44.7% of patients with hemorrhoids are symptomatic and need surgical interventions. Excisional Hemorrhoidectomy (EH) is the most operative treatment for high-grade symptomatic hemorrhoids with a 2% medium-term and a 10% long-term recurrence rate [7].

The accurate reasons of symptomatic hemorrhoids are still unidentified. It occurs due to irregular bowel habits (constipation or diarrhoea), lack of exercise, nutritional aspects (low-fiber diets), increased intra-abdominal pressure (prolonged straining, ascites, an intra-abdominal mass, or pregnancy), genetics, an absence of valves within the haemorrhoidal veins, and aging. Other elements that are believed to increase risk include fatness, continued sitting, a chronic cough, pelvic floor dysfunction, squatting while defecating may also increase the risk of severe hemorrhoids. Evidence for these relations, however, is poor.

There are two types of hemorrhoids; external and internal. It can be differentiated by its position with respect to the pectinate line. Internal hemorrhoids are usually painless, bright red rectal bleeding when excreting. External hemorrhoids are painful and swelling in the area of the anus internal hemorrhoids was classified in 1985 into four grades based on the degree of prolapsed [8]. Hemorrhoids can be diagnosed by physical examination [9]. A visual inspection of the anus and surrounding area may diagnose external or prolapsed hemorrhoids. A rectal exam may be performed to detect possible rectal tumors, polyps, an enlarged prostate, or abscesses. This checkup may not be possible without suitable sedation because of pain; however, most of the internal hemorrhoids are painless. Visual confirmation of internal hemorrhoids may involve Anoscopy, Colonoscopy or Sigmoidoscopy.

Although, no particular treatment is needed but through the initial measures comprise of increasing fibre intake, drinking fluids to maintain hydration, NSAIDs can be taken to overcome the pain and provide rest [7]. Medicated creams may also be used, but it is observed that their efficiency has not been supportive. Minor techniques may be applied in case of severe symptoms. Eventually, surgery is the only way to get rid of it.

Many advanced techniques and treatments have been introduced worldwide for hemorrhoids but surgical therapy for hemorrhoids is yet opens [10]. Excisional Hemorrhoidectomy is a surgical removal of the hemorrhoids used primarily only in severe cases. It is connected with post-operative pain and generally requires two to four weeks for recovery. Lateral internal sphincterotomy is commonly used practice for releasing spasm and pain in fissure in ano [4]. All surgical treatments are linked with some degree of problems including bleeding, infection, anal strictures and urinary retention, due to the close proximity of the rectum to the nerves that supply the bladder. The studies recommended numerous preventive measures includes avoiding straining while attempting to defecate, avoiding constipation and diarrhoea either by eating a high-fibre diet and drinking plenty of liquid or by taking fibre supplements, and getting sufficient exercise and avoiding heavy weight lifting.

The aim of the study was to evaluate the frequency of postoperative pain and rectal bleeding in open hemorrhoidectomy with and without lateral sphincterotomy.

METHODOLOGY

This prospective case control study was conducted in surgical unit-I of Ghulam Mohammad Mahar Medical College (GMMC), Sukkur. The ethical approval for the study was taken from Institutional Research and Ethical Committee. Duration of the study was about 2 years from Nov 2016 to Dec 2018. A total of 120 patients were chosen for this study in which 77 were males and 43 were females.

In this study, patients of age between 18 to 50 years with 2nd, 3rd and 4th degree hemorrhoids were included. Whereas, 1st degree hemorrhoids, patients with associated anal fissure, patients who had undergone prior intervention for hemorrhoids, fecal incontinence, and patients already treated with sclerotherapy for hemorrhoids, history and clinical examination of patient who were not fit for anesthesia were not enrolled. Uncontrolled diabetes mellitus, hypertension, chronic liver disease and coagulopathies were also excluded from the study.

Post-operative pain was observed on subsequent visits after 48 hours, one week and 4 weeks post operatively, the pain was measured by visual analog scoring (VAS).

Data was analyzed using Statistical Package for the Social Sciences (SPSS) version 20 (IBM Corporation, Armonk, NY, US) and presented in the table by calculating mean standard deviation for quantitative data and frequency and percentages for qualitative data.

RESULTS

Table 1 shows 60 patients out of 120 underwent only hemorrhoidectomy and remaining 60 were gone for hemorrhoidectomy with LIS under general or spinal anesthesia. Majority of them were males about 64.2% and 35.8% were female. The age ranges from 18 to 50 years. About 60 (50.0%) patients out of 120 had 3rd degree hemorrhoids.

Table 2 shows at the end of 48 hours, 57 (47.5%) patients having a mild pain while 8 (6.7%) patients having a severe pain. By the end of one week, 70 (58.3%) patients had mild pain while there is no pain in 40 (33.3%) patients. At the end of 4th week, most of the patients were recovered and few remains with a mild pain.

Table 3 shows the bleeding per rectal at different intervals after the open hemorrhoidectomy and hemorrhoidectomy with LIS. Results showed that 12 (10%) had bleeding per rectal at 1st post-operative day and it occurred in only 8 (6.7%) at 2nd post-operative day. It also showed that at the end of 4th week, postoperative wound healing was completed for both the surgeries. So, there was considerable difference of severity in pain between open hemorrhoidectomy and hemorrhoidectomy with LIS.

DISCUSSION

Hemorrhoids are common in the general population and in clinical practice. Many anorectal problems, i.e. fissures, fistulae, abscesses, or irritation and itching (pruritus ani), have the same symptoms and are incorrectly referred to as hemorrhoid [11]. Open hemorrhoidectomy remains a surgical therapy for hemorrhoids worldwide. It is an unpleasant practice of the surgery.

Table 1: General description of the patients of hemorrhoids.

Variable		n	(%)
Gender	Male	77	64.2
	Female	43	35.8
Degree	2nd degree hemorrhoid	21	17.5
	3rd degree	60	50
	4th degree	39	32.5
Hemorrhoidectomy without/ with L.I.S	Hemorrhoidectomy	60	50
	Hemorrhoidectomy + LIS	60	50

Table 2: Severity of pain after 48 hours, one week and after 4th week.

Variable		n	(%)
Pain at 2nd	No pain	0	0(0%)
Post-operative day	Mild	57	47.5
	Moderate	55	45.8
	Severe	8	6.7
Pain at 7thPOD	No pain	40	33.3
	Mild	70	58.3
	Moderate	8	6.7
	Severe	2	1.7
Pain at 30thPOD	No pain	115	95.8
	Mild pain	5	4.2

Table 3: Assessment of postoperative complications and healing of wound postoperatively.

	Variable		n	(%)
Bleeding per Rectal	1st Post-operative day	Yes	12	10
		No	108	90
	2nd Post-operative day	Yes	8	6.7
		No	112	93.3
	1stweek	Yes	7	5.8
		No	113	94.2
	1stmonth	Yes	3	2.5
		No	117	97.5
	2nd month	Yes	0	0
		No	120	100
Post-operative wound healing	2nd week	Yes	111	92.5
		No	9	7.5
	4th week	Yes	120	100
		No	0	0

Postoperative pain is a result of conventional open hemorrhoidectomy, which is the main disadvantage of hemorrhoidectomy, especially in the 1st postoperative week [12]. Postoperative pain is attributed to the spasm of the internal sphincter that is exposed after open hemorrhoidectomy, especially in younger patients with higher anal tone [13].

Different studies stated a significant reduction of postoperative pain for conventional open hemorrhoidectomy and decrease in complications like anorectal bleeding which was realized by adding an internal sphincterotomy to hemorrhoidectomy [14]. A study done by Asfar et al. [15] described that the routine performance of internal sphincterotomy through one of the hemorrhoidectomy wounds significantly reduces post-hemorrhoidectomy pain and connected complications. It has been proved by our study that addition of internal sphincterotomy was found to be a suitable procedure to reduce post-hemorrhoidectomy pain, but it is not completely empty of transient complications in early postoperative period. It is more beneficial in young patients with higher anal pressure.

In our study, we evaluated 120 cases of which the most common age group suffering from hemorrhoids was18–50 years. In the cases treated all were affected by primary 2nd, 3rd and 4th degree hemorrhoids, males had a higher incidence with 77(64.2%) males 43(35.8%) females. Apart from postoperative pain, the most common complication was bleeding per rectal which was found in few patients from the 1st operative day till 7th day (47.5% and 58.3% respectively) that was mild to moderate in intensity. We also found that in patients who had an addition of lateral internal sphincterotomy to open hemorrhoidectomy, there was a lesser need for analgesia throughout the postoperative period as shown by the visual analog scales and patient having a mild pain in 1st week that gradually decreased with the passage of time. These results were also consistent with a study done by Asfar et al. [15].

Das et al. [16] assessed 50 patients aged between 24 - 50 years who were treated for 3rd and 4th degree hemorrhoids in a prospective randomized study. The age and sex scattering among the study group were compared with a study done by Das et al. In that study, the duration was about 2 years more than that of our study. It was found in that study patients undergoing hemorrhoidectomy without sphincterotomy had significantly more complications when compared to with sphincterotomy group. On the contrary, in our study, there were not any patient's experienced late complications such as incontinence or anal stenosis [16].

Healing rates following with or without sphincterotomy after hemorrhoidectomy were compared between our study and the study conducted by Das et al. In the follow-up period post-operatively, it was found that

complete wound healing occurred by 2 weeks in with sphincterotomy group of both the studies. They revealed that internal sphincterotomy can be safely added to hemorrhoidectomy, especially for younger patients to reduce the painful postoperative pain and associated complications. These findings were also consistent with our studies.

A study by Galizia et al. [17] evaluated 42 consecutive patients with prolapsed pile. The study concluded that the addition of lateral internal sphincterotomy to hemorrhoidectomy seems to improve postoperative course related to symptoms of postoperative pain and associated complications. Similarly, our study also proved that there is less chances of complications with both type of surgeries. Kanellos et al. [18] evaluated 78 patients with 4th degree hemorrhoids. The results of the study showed that after the first bowel movement, there were 3 (7.7%) patients who did not experience any pain in the internal sphincterotomy group, while in the non-internal sphincterotomy group, all patients' experienced mild or moderate pain. These results were also similar to our studies in which most of the patients had 3rd and 4th degree hemorrhoids and had a pain of mild to moderate intensity in and 47.5% and 58.3% cases at 2nd and 7th postoperative day.

Diana et al. [19] studied with II Grade, III Grade, IV Grade hemorrhoids found that lateral internal sphincterotomy reduces pain significantly only in the first postoperative period, but not in the medium and long term follow up and bleeding per rectum occurs till 7th day in only few patients. Similarly, our study had proved post-operative complications like bleeding per rectum occurs till 1st month in only few patients and wound were completely healed at the end of 4th week in both types of surgery.

Hence, in the surgical intervention of hemorrhoids, addition of lateral internal sphincterotomy in open hemorrhoidectomy reduces the frequency of postoperative pain and bleeding per rectal as compared to open hemorrhoidectomy without sphincterotomy.

CONCLUSION

This study concluded that frequency of post-operative pain was reduced by the addition of lateral internal sphincterotomy in open hemorrhoidectomy than open hemorrhoidectomy without sphincterotomy in the management of hemorrhides. Furthermore, post-operative complications like bleeding per rectal were also reduced in open hemorrhoidectomy with internal sphincterotomy.

REFERENCES

1. Liratzopoulos N, Efremidou EI, Papageorgiou MS, et al. Lateral subcutaneous internal sphincterotomy in the treatment of chronic anal fissure: Our experience. J Gastrointestin Liver Dis 2006; 15:143-147.
2. Schubert MC, Sridhar S, Schade RR, et al. What every gastroenterologist needs to know about common anorectal disorders. World J Gastroenterol 2009; 15:3201.
3. Keighley MR, Williams NS. Surgery of anus, rectum and colon. Philadelphia, PA: Saunders Publications 2008; 2:351-422.
4. Lorenzo-Rivero S. Article commentary: Hemorrhoids: Diagnosis and current management. Am Surg 2009; 75:635-642.
5. Kaidar-Person O, Person B, Wexner SD. Hemorrhoidal disease: A comprehensive review. J Am College Surg 2007; 204:102-117.
6. Williams PL, Warwick R. Gray's anatomy. Edinburgh: Churchill Livingstone 2008; 36:1358-1361.
7. Sun Z, Migaly J. Review of hemorrhoid disease: Presentation and management. Clin Colon Rectal Surg 2016; 29:22-29.
8. Riss S, Weiser FA, Riss T, et al. Hemorrhoids and quality of life. Colorectal Dis 2011; 13:e48-52.
9. Hollingshead JR, Phillips RK. Hemorrhoids: Modern diagnosis and treatment. Postgraduate Med J 2016; 92:4–8.
10. Steele SR, Kumar R, Feingold DL, et al. Practice parameters for the management of perianal abscess and fistula-in-ano. Dis Colon Rectum 2011; 54:1465-74.
11. Gupta A, Bah M. NSAIDs in the treatment of postoperative pain. Curr Pain Headache Rep 2016; 20:62.
12. Agbo SP. Surgical management of hemorrhoids. J Surg Tech Case Rep 2011; 3:68–75.
13. Bonakdar RA. Integrative pain management. Med Clin North Am 2017; 101:987-1004.
14. Emile SH. Indications and technical aspects of internal anal sphincterotomy highlighting the controversies. Dis Colon Rectum 2017; 60:128-132.
15. Asfar SK, Juma TH, Ala-Edeen T. Hemorrhoidectomy and sphincterotomy. A prospective study comparing the effectiveness of anal stretch and sphincterotomy in reducing pain after hemorrhoidectomy. Dis Colon Rectum 1974; 17:493-522.
16. Das DK, Choudhury UC, Lim ZS. Effectiveness of internal sphincterotomy in reducing post open hemorrhoidectomy pain: A randomized comparative clinical study. Int J Collab Res Intern Med Public Health 2013; 5:428-33.
17. Galizia G, Lieto E, Imperatore V, et al. The usefulness of lateral internal sphincterotomy combined with hemorrhoidectomy in the treatment of hemorrhoids: A randomized prospective study. G Chir 2000; 21:127-34.
18. Kanellos I, Zacharakis E, Christoforidis E, et al. Usefulness of lateral internal sphincterotomy in reducing postoperative pain after open hemorrhoidectomy. World J Surg 2005; 29:464-468.
19. Diana G, Guercio G, Cudia B, et al. Internal sphincterotomy reduces postoperative pain after Milligan Morgan haemorrhoidectomy. BMC Surg 2009; 9:16.