Efficacy of closed haemorrhoidectomy in the treatment of third degree hemorrhoids

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ABSTRACT:

Introduction: Haemorrhoids is a common surgical condition. According to some estimate it affects one quarter of all adults. Surgical intervention is usually required in low-grade haemorrhoids refractory to non-surgical treatmen and high-grade symptomatic haemorrhoids.

Objective: To determine the efficacy of closed haemorrhoidectomy in the treatment of third degree hemorrhoids.

Materials and methods: This case series study was conducted in surgical department Hayatabad Medical Complex Peshawar from 10th march 2017 to 10 sep 2019 after obtaining approval from Hospital ethical and research commitee. A total of 263 patients were included in the study.

Results: A total of 263 patients undergoing closed haemorrhoidectomy were included in the study. Average age was 37.15 years+9.81SD with range 20-60 years. The efficacy of closed hemorrhoidectomy in term of postoperative pain was observed in 193(73.38%).

Conclusion: We concluded that closed haemorrhoidectomy in term of postoperative pain was effective in patients with third degree hemorrhoids.

Keywords: Efficacy, Haemorrhoids, Haemorrhoidectomy.

INTRODUCTION

Haemorrhoidal venous cushions are normal structures of the anorectum and are anatomically present unless a previous intervention has taken place. Because of their rich vascular supply, highly sensitive location, and tendency to engorge and prolapse, haemorrhoidal venous cushions are common causes of anal pathology.[1] Symptoms can range from mildly bothersome, such as pruritus to quite concerning such as rectal bleeding. Numerous interventions exist for their management, ranging from topical and medical therapies to outpatient treatments and surgical interventions that aim to fix or excise.[2]

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The American Society of Colon and Rectal Surgeons (ASCRS) provide recommendations for evaluating patients with haemorrhoids for identifying patients who require endoscopic evaluation of the colon, and for treatment options such as diet modification, office-based procedures, and surgical haemorrhoidectomy.[3] While the debate continues as to which is the best surgical method for the treatment of haemorrhoids, none of the currently available surgical methods approach the ideal surgical option, which is one that is effective while being safe and painless. In reality, less painful the procedure, more likely it is to be associated with recurrence post-op.[4]

Surgery is usually required in low-grade haemorrhoids refractory to non surgical treatment, high-grade symptomatic haemorrhoids and haemorrhoids with complication such as strangulation and thrombosis. Patient may need haemorrhoidectomy if other accompanying anorectal conditions are present, requiring surgery.[5] Haemorroidectomy can be open or closed depending on whether the post op defects is left open or closed. In one study, out of 25 patients who underwent closed haemorrhoidectomy, 2.7% of patients had recurrence post operatively.[6] In another study it was concluded that haemorrhoidectomy using closed technique has more advantages than open haemorroidectomy.[7] In one study, only 2 (6.6%) patients who underwent

closed haemorrhoidectomy experienced post op pain as compared to 5 (16.6%) who underwent open haemorrhoidectomy after one week of surgery.[8]

The objective of the current study was to determine efficacy of closed haemorrhoidectomy in the treatment of third degree haemorrhoids. This study will further guide us in the management of post-procedural pain and disease recurrence which remain the most challenging problems in the treatment of haemorrhoids.

MATERIAL AND METHODS

This case series study was carried out in the Department of General Surgery Hayatabad Medical Complex, Peshawar, Pakistan during the period from 10 march 2017 to 10 sep 2019 after approval from hospital ethical and research committee. A total of 263 patients with third degree haemorroids of both sexes were admitted through out -patient department.

Inclusion Criteria:

1. Patients of either gender
2. Patients having age between 20 to 60 years.

3. Patients presented with signs and symptoms of pain, bleeding and swelling around the anus diagnosed as Grade III haemorrhoids on digital rectal examination and proctoscopy.

Exclusion Criteria:

1. Grade I, II, IV Haemorrhoids, as we only included grade III haemorroids in our study.

2. Patients with other complex lower GI problems like fistula in ano, malignancy, which could act as confounders for postoperative pain control.

4. Patients losing follow up were also excluded from the study.

After taking approval from Ethical and research committee of the hospital, patients meeting inclusion criteria were inducted in the study. Written informed consent were also obtained from all patients. Patients were subjected to detailed history and examination that included the symptomatology of the disease. After digital rectal examination patients were subjected to proctoscopic examination to confirm the diagnosis and to rule out other associated conditions. Systemic examination and basic investigations were also done. Finally patients were subjected to closed haemorrhoidectomy. Follow up of these patients were done one week post surgery for post op pain in order to determine efficacy of the procedure. Post-operative pain was assessed using 10 point Visual Analogue Score (VAS), 0=no pain, 10= most severe pain. All information including age, gender and post op pain were recorded in a proforma. Data were entered and analyzed using SPSS version 22.0. Mean and SD were calculated for numerical variables such as age, duration of procedure and post op VAS Pain Score. Frequencies and percentages were calculated for efficacy. Efficacy were stratified with gender, duration of procedure and post of pain in order see effect modifiers. Post stratification chi square test was applied keeping p value < 0.05 as significant. All results were presented in the shape of graphs and tables.

RESULTS

A total of 263 patients with Grade III haemorrhoids were included in the study for closed haemrhoidectomy to find its efficacy in terms of postoperative pain.

Among enrolled patients males were more as compared to females with male to female ratio of 1.37:1 (Fig1). Average age of the patients was 37.15 years ± 9.81SD with range 20-60 years. Patient's age was divided in four categories, out of which most common age group for Grade III haemorrhoids was 31-40 years and least common age was above 50 years (Table 1).

The efficacy of closed haemorrhoidectomy in terms of postoperative pain was observed in 193(73.38%) while in 70(26.62%) patients showed no efficacy as they suffered from pain of more than 3 on visual analogue scale.

Age wise distribution of closed haemorrhoidectomy patients shows that efficacy of closed haemorrhoidectomy in younger age was little bit high as that of old age but it was statistically not significant with p-value 0.162. The patients having age less than or equal to 30 years of age had efficacy of 79.4, as compared to patients having more than 50 years of age with 61.8% efficacy (Table 2). Stratification of efficacy over gender and duration of procedure shows insignificant role (Table 3).

TABLE NO. 1: AGE WISE DISTRIBUTION OF THE PATIENTS

	Frequency	Percent	Mean±SD
<= 30.00	68	25.9	
31.00 - 40.00	92	35.0	
41.00 - 50.00	69	26.2	37.15 years ±9.81SD
51.00+	34	12.9	
Total	263	100.0	

TABLE NO. 2: AGE WISE DISTRIBUTION OF EFFICACY

		Efficacy		Total	p-value
		Yes	No		
Age (in years)	<= 30.00	54 79.4%	14 20.6%	68 100.0%	0.162
	31.00 - 40.00	64 69.6%	28 30.4%	92 100.0%	
	41.00 - 50.00	54 78.3%	15 21.7%	69 100.0%	
	51.00+	21 61.8%	13 38.2%	34 100.0%	
Total		193 73.4%	70 26.6%	263 100.0%	

TABLE NO. 3: GENDER AND DURATION OF PROCEDURE WISE DISTRIBUTION OF EFFICACY

		Efficacy		p-value
		Yes	No	
Sex	Male	115	37	0.329
		75.7%	24.3%	
	Female	78	33	
		70.3%	29.7%	
Duration of Procedure (in <= 25.00		140	50	0.859
mints)		73.7%	26.3%	
	26.00+	53	20	
		72.6%	27.4%	

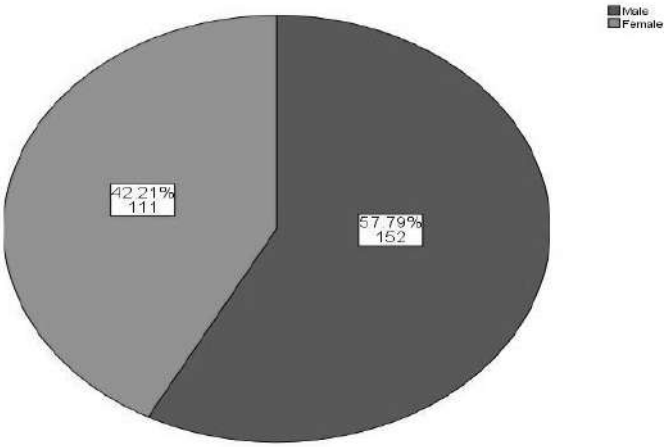

FIGURE NO. 1: GENDER WISE DISTRIBUTION

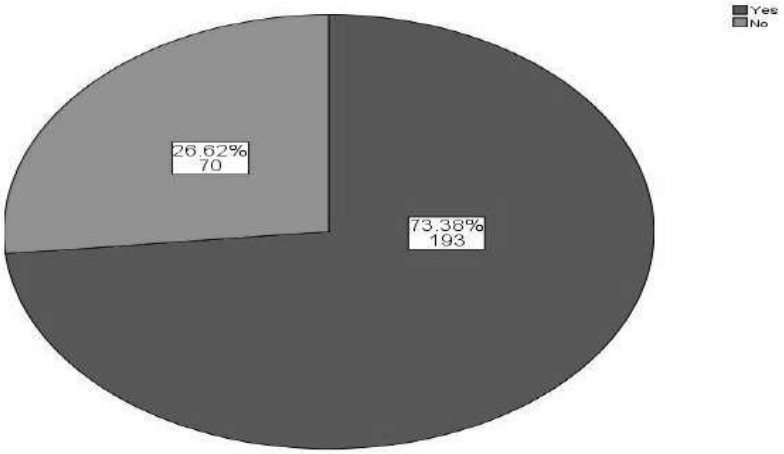

Figure No. 2: EFFICACY OF CLOSED HEMORRHOIDECTOMY

DISCUSSION

Haemorrhoids are the most common surgical disease that a surgeon faces in his day to day practice. Although haemorrhoids is not life threatening, these cause discomfort to the patient each time he defecates. Hence, it deserves careful examination and management. Various studies that have analysed the different modalities of treatment of haemorrhoids, but there have never been a perfect technique described for this disease.[9]

In our study, we found that increased number of patients presented with haemorrhoids in the age group of 31 to 40 years, comparable with a study by Akindiose.[10] Early presentation can be assigned to the changing dietary habits and lifestyle modifications leading to chronic constipation and straining for defecation. In our study male predominate than females, as also shown in their studies by Akindiose[10], Emeka[11] and Picchio[12] respectively. The reason for male predominane could be due to the hesitant nature of the females to come for check up in our setup.

Pain after haemorroidal surgery is a common issue. In order to lessen the postop pain, several surgical techniques have been recommended, including closed and open haemorroidectomy, harmonic scalpel haemorroidectomy, bipolar scissor haemorroidectomy etc. A recent study demonstrated significantly low postoperative pain in open as compared to closed haemorroidectomy.[13]

In closed haemorrhoidectomy technique[14] after haemorhoidectomy the wounds is closed primarily with an absorbable suture. Healing

is faster and less painful after close haemorhoidectomy. In a recent study, 100 patients were randomized to either open or closed procedures. Although results were similar after a year, healing and pain scores were improved in the closed group[15], as also shown in our study.

In the present study the efficacy of postoperative pain after closed haemorroidectomy was 73.36 percent, which is comparable with a study by Sundeep[16], concluded that postoperative pain was less in closed haemorroidectomy than open haemorroidectomy. The reason for low postoperative pain in our study was the primary closure of the wound after haemorroidectomy without leaving any raw areas as in open haemorroidectomy. In contrast Khalid in his study, showed that there are no difference in postoperative pain between open and closed haemorroidectomy groups[17].

CONCLUSION

In conclusion, Closed haemorrhoidectomy leads to less postoperative pain. Hence, it is a safe and effective procedure. Closed haemorrhoidectomy is the procedure of choice for third and fourth degree hemorrhoids. But further randomized trials are suggested before considering any guidelines for such patients in future.

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