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Efficacy and Complication of Rubber Band Ligation of Hemorrhoids in Out Patient Clinic in Al-Muthanna Province

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Abstract--- Introduction: *The rubber band ligation now day is one of the most worldwide effective technique used for treatment of hemorrhoids. Objective of this study to determine the outcome of the endoscopic band ligation in patients with internal hemorrhoids.*

Patients and Methods: *This observational and prospective study was done for 159 patients with 1st,2nd,3rd,degree hemorrhoids between 1stjune 2015 to 31 june 2018 in outpatient clinics in Almuthanna province any complicated pile such with fistula ,fissure and malignancy were excluded our patients fellow up in one month,6months, years and then yearly by telephone.*

Result: *From 159 patient with mean age 44.28 (range 18-89)recurrence occure in 21(13.2) case .postoperative bleeding in 4 cases (2.5%)and pain in 7 case (4.4) vasovagal syncope 4 cases (2.5%) in and infection in 2 case (1.3%).*

Conclusion: *Rubber band ligation is an effective, outdoor procedure for symptomatic 1st,2nd,3rd degree hemorrhoids with acceptable morbidity*

Keywords--- *Hemorrhoids, Rubber Band Ligation, Out Patient Clinics.*

I. INTRODUCTION

Hemorrhoids are considered one of the most frequent diseases of the anal region with a high prevalence (nearly 50% of proctological visits in a colorectal unit). Its incidence peak is between 45 and 65 years of age, and is more common in males (1). It is the most frequent anorectal pathology with rectal bleeding in primary care(2)

They commonly occur in patients with chronic increased intra-abdominal pressure such as in chronic obstructive airway disease and in pregnancy.(3)

Symptoms of haemorrhoids include bleeding, mucosal or faecal soiling, itching and, occasionally, pain, which, if left untreated, continue to cause physical and social problems to patients

The treatment of hemorrhoids is either conservative, includes hot sitz bath, medication, diet, and defecation, or surgical which is either non-invasive, which includes sclerotherapy, RBL, cryosurgery, infrared coagulation, laser coagulation, bipolar diathermy, anal dilatation, ultroid, and diode laser treatment, or invasive modality, which includes excision and ligation, closed hemorrhoidectomy, submucosalhemorrhoidectomy, whitehead operation, stapled hemorrhoidopexy (PPH), and excision with ligasure (4-6)

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Rubber band ligation (RBL) is the most common outpatient non-surgical procedure available for hemorrhoids. Ithad been advised To be an outpatient procedure because it is safe, effective, and easy to perform (7-10)

RBL may be complicated by pain, rectal bleeding, vasovagal symptoms (dizziness or fainting), and severe perianal sepsis in some occasions (11)

II. METHODS AND MATERIALS

This observational and prospective study was conducted at Al-muthanna,A-lsamawa in outpatient clinic , with the duration of 1st June 2015 to 31 june 2018. Both genders were enrolled in the study

The inclusion and exclusion criteria of which patients are at any age with first, second, or third degree internal piles were included, while patients with fourth-degree hemorrhoids and complicated piles were excluded. Thorough history taking was performed and age, sex, occupation, residence and presentation (bleeding ,prolapse ,anal pain, discharge, and pruritus) were recorded. Anal examination was carried out by inspection, palpation, P.R. examination, proctoscopic examination, and sigmoidoscopic examination for patients above 50 years.

Informed consent was obtained . All bandings were performed by a single surgeon. With the patient in a left lateral position and knees flexed, the anus was inspected and a digital rectal examination was performed in the usual manner. A proctoscope was then inserted using aanaesthetic lubricant, a traditional metallic proctoscope was introduced and the haemorrhoids were grasped and pulled down to their pedicles above the dentate line using conventional stainless steel forceps into the rubber band barrel for its application. This required at least two operators (the surgeon, who needed to hold the forceps in one hand and the ligator in the other hand, and an assistant, whose left hand held the proctoscope and right hand shone the light). a self-lighted proctoscope

all piles are ligated in the same session . The patient was observed in the clinic 1–2 h in order to detect any early complication such as hemorrhage and pain.

Follow-up was made at one month, six months, 1 year, and then yearly via a telephone questionnaire. Subsequent ligations were performed at one month after the prior one, if the patient still had symptoms

Statistical analysis :data of research was analyzed by using SPSS version23.the statistical significant difference for p-value less than o.o5 was at confidence interval of 95%

Tables in simple proportion and comparisons of subgroup were done by using pearson chi-square test.

III. RESULTS

There were 159 patients in our study .male were 123(77.4%)and female 36(22.6%) table (1) . 106 of them 2rd degree with percent 66.7% and 27,26 of them 1st and3rd degree with percent(17%,16.4%)respectively table (2).

age of our patients between 16and 89 with mean of 44.28 and standard deviation of 17.5 table(3) .there presentation as bleeding per rectum 115 case with percent (72.3%)and 17(10.7%) cases with prolapse ,11(6.9%) with discharge , 9(5.7%) cases with pruritis and 7(4.4%) case presented with pain

postoperative complications were vasovagal attack 4(2.5%)of cases and bleeding in 4(2.5%) of cases table (4)

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immediate pain 7(4.4) of cases , infection in 2 (1.3)cases table(5), Recurrent hemorrhoids was in 21 case with percent of (13.2%) also we see that the recurrence more significant in those with age more than 45 years old table (6).

Table 1: Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	f	36	22.6	22.6	22.6
	m	123	77.4	77.4	100.0
	Total	159	100.0	100.0	

Table 2: Grade of Haemorrhoid

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	27	17.0	17.0	17.0
	2	106	66.7	66.7	83.6
	3	26	16.4	16.4	100.0
	Total	159	100.0	100.0	

Table 3: Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Age	159	16	89	44.28	17.544
Valid N (listwise)	159				

Table 4: Vasovagal Attack and Bleeding

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No vasovagal syncope	155	97.5	97.5	97.5
	Vasovagal syncope	4	2.5	2.5	100.0
	Total	159	100.0	100.0	
Valid	bleeding	4	2.5	2.5	2.5
	No bleeding	155	97.5	97.5	100.0
	Total	159	100.0	100.0	

Table 5: Infection and Pain

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	infection	2	1.3	1.3	1.3
No infection		157	98.7	98.7	100.0
	Total	159	100.0	100.0	
Valid	No pain	152	95.6	95.6	95.6
	pain	7	4.4	4.4	100.0
	Total	159	100.0	100.0	

Table 6: Recoded Age * Recurrent Haemorrhoid Cross Tabulation

			recurrent haemorrhoid		Total
			not	recurrence	
Recoded age	44-16	Count	81	4	85
		% within Recoded age	95.3%	4.7%	100.0%
	45-65	Count	42	11	53
		% within Recoded age	79.2%	20.8%	100.0%
	66-89	Count	15	6	21
		% within Recoded age	71.4%	28.6%	100.0%
Total		Count	138	21	159
		% within Recoded age	86.8%	13.2%	100.0%

Pearson Chi-Square(12.317),p-value(0.002)

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IV. DISCUSSION

Haemorrhoidal disease is very commonly encountered in 5% of the general population, 50% of the individual over the age of 50 years (12)

The mean age of patients in our series was 44.28 years (16-89 years). This is comparable to that reported by Murie et al. [14] who reported the mean age of 50±12 y.

The success rates of RBL range is between 79 and 91.8 % [14] In our study, successful results were achieved in 137 patients (86.2 %), who were cured at the end of the treatment. In Ayman et al. [10], symptomatic recurrence was detected in 11.04 % after 2 years, while Vassillios et al. [14] . In our study, symptomatic recurrence was detected in 13.2%(21/138) after 2 years of follow-up

According to complications Post-banding pain was frequently observed even during careful placement above the dentate line. Furthermore, pain and anal discomfort were reported to be greater when multiple bandings were performed. Gupta [15] found that out of 44 patients that underwent RBL, seven patients(15.9%)reported pain . Ayman et al .[10]foundpain in 31patients(4.13%)out of the 750 studied group. We found that pain occurred in 7 patients (4.4 %), and in all cases,

Bleeding is a significant complication of RBL, and it cannot be prevented. It is the result of the fall of the hemorrhoidal nodule and local inflammation ;bleeding in our series occurred in 4 cases (2.5 %). It was mild and treated conservatively in all cases without hospitalization or blood transfusion. Ayman et al. [10] in their study of 750 cases found that 31 patients (4.13 %) had bleeding which is slightly higher than our results.

In our study, Post-banding vasovagal symptom occurred in 4 case (2.5%).

V. CONCLUSION

RBL is a simple, safe, and effective method for treating symptomatic second- and third-degree hemorrhoids and an outpatient procedure that contributes significant improvement in quality of life..

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