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ASSESSMENT OF HEMORRHOIDS SURGICAL INTERVENTION AMONG 180 PATIENTS IN KARBALA CITY.

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ABSTRACT : Hemorrhoids are recognized as one of the common medical condition in the general population faced in surgical work. This a prospective study assesses three different methods of treatment in 180 patients of second and non-complicated third degrees piles were divided into equal numbers to three categories: Category A treated by conventional excision ligation classical Milligan Morgan. Category B treated by the pile. Suture Category C treated by rubber band ligation. The average period of follow up after the completion of treatment was three years. Patients were assessed for early complications; Pain, Urinary Retention,and bleeding. Late complications; anal stenosis, recurrence, cost elements, Length of hospital stay, and sick leave. The conservative treatment methods were considered as a preferable to conventional excision ligation for treatment of second and early third degree piles. Of the two conservative methods used in this study, we recommended pile suture as the method of choice

Key words : Surgical, interventions, hemorrhoids, complications, pile suture.

INTRODUCTION

Hemorrhoid is a Greek term of two words Haem which means blood and Rhoid means to flow. Hemorrhoid is a very common disease defined as the symptomatic enlargement and/or distal displacement of anal cushions (Lohsiriwat, 2013). Haemorrhoid is either introduced through the ano-rectal lumen and covered by the mucous membrane called internal piles which characterized by bleeding without pain or covered by the skin and called external piles which characterized by pain as well as bleeding. Sometimes piles prolapsed bulging outside anal sphincter called prolapsing piles (Haas, Fox, and Haas, 1984). There are 4 degrees of piles. First degree a fleshy-bloody mass (pile) felt inside the anus. Second degree a pile descends outside anus and returns spontaneously after defecation. Third degree a pile descends and patient reduces it by his finger. Fourth degree a pile is of the interno-external prolapsing type which descends outside and the patient cannot reduce it (Madoff and Fleshman, 2004). Site of hemorrhoids:-the usual sites of are 3rd 7th 11th O clock of the anal orifice as a circle (Lohsiriwat, 2012).

Clinical features

1. Painless bleeding during defecation ranging from microscopical to frank severe bleeding. Some patients presented withsevere anemia.
2. Heavy mucosal discharge which causes
3. Sever anal itching or irritation
4. Pain or discomfort bowel motion slurred in most of patients.
5. Lump near anus which may be very painful (may be thrombosed pile (Guindic, 2014). The multiplicity of treatment modalities gives an impression that none of these is a technique of choice. Although many techniques have been admitted in treatment of hemorrhoids like (sclerotherapy–Cryosurgerylaser-infrared coagulation- etc.) the commonest surgery in hemorrhoids treatment is still the conventional excision-ligation (Bowman, 1948) which is associated with severe post-hemorrhoidectomy pain-relatively long-standing. In addition to discomfort from large anal pack and a high incidence of anal stenosis. The refusal of many patients to undergo excisional surgery has led to increase the affinity to less invasive forms of treatment of which one of latest technique is pile suture(Villalba and Abbas, 2007). This study evaluates the results of three different methods of treatment. Conventionalexcision ligation technique-pile suture and rubber band ligation, to find which method is better.

PATIENTS AND METHODS

This study was carried out in Al-Hussein teaching hospital and private clinics in Kerbala governarate in Iraq from 1st January 2014 to 31st December 2017.180 consecutive patients with second and uncomplicated third degree hemorrhoidswere admitted to this prospective study. Males/female ratio 144/36=4/1.The mean age was 35 years years (ranging from19—80years).Patients were non-selectively assorted into three categories each of 60 patients as follows; Category A –treated by classical Milligan-Morgan procedure = excisional ligationCategory B- treated by pile suture technique.Category C- treated by rubber band ligation technique.

To avoid wrong results created by variability in the manual skill of different surgeons as well as variability in post-operative assessment all patients were operated upon by researcher with cross follow-up by a different surgeon from the same team.Postoperative assessment was done daily during the hospitalization period,weekly for the first month and monthly for 1 year andthereafter every 6 months.The average period of follow-upafter completionoftreatmentwas (3years).

The postoperative assessmentincluded

1. Early complications a.pain b. hemorrhage c. retention of urine
2. Late complicationsa. stricture of anus b.Recurrence
3. Cost elements a-hospital period stay and b-sick leaves in days.

The pile suture method is performed under epidural or generalanesthesia. The patients were held in a lithotomy position.The skin is retracted by tissue forceps at the muco-cutaneousjunction corresponding to each pile. A curved hemostat (forceps) is applied toeach pile and three interrupted sutures of No.0 absorbable threads are passed through the mucous membrane beneath. Theproximal suture is inserted at the tip of the hemostat to occlude the superior hemorrhoidal vessels.The distal suture is introduced into the distalend of the internal hemorrhoidabove the dentate line to interrupt the connection between the external and internal plexuses.The third suture is applied between the proximal and distal sutures.Then the three sutures are tied after removing the hemostat.Excessive skin tags to each pile are excised. Average operative time is 15 minutes.The statistical tests applied in this study were X2-test with Yates correctionand Students t-test as appropriate.

RESULTS AND DISCUSSION

Early post-operative complications

a) Postoperative pain: our assessment for pain was based on the amount of analgesic needed during the first two post-operative days. Mild pain was relieved by Tramadol ampoule moderate pain needed only one morphine ampoule; and severe pain needed two or more ampoules of morphine. Marked reduction in the severity of postoperative pain in category B and C compared to category A. During the remaining period of hospitalization period the patients in the pile suture category did not require any type of analgesics to relieve their pain up to the 5thPost-operative day. Three patients of the rubber band ligation category developed severe pain, one needing hospital admission for 2 days, while the other two received more than two morphine ampoules.

b) Retention of urine 12 patients=20% in category A required catheterization while none from category B and C developed such complication

c) Postoperative bleeding this means alarming bleeding necessitating blood transfusion or surgical interference. This occurred as reactionary bleeding in 2 patient belonging to category A and 2 secondary bleeding in another 2 patients in category C.

Late postoperative complications (Table 4)

a) Postoperative anal stenosis we diagnosed stenosis when the anus was passible to the finger and not to the proctoscope. 6 patients (10%) of category A developed such a stenosis which necessitated the use of dilators. None from category B or C developed such complication.

b) Recurrence; This means the recurrence of the preoperative symptoms. By follow up monitoring none of the patients in category A developed recurrence but in category B 3 patients (5%) did so (statistically insignificant).

The other patient developed a fissure at the distal end of left lateral hemorrhoid which required surgical management under short general

Anesthesia 2 months laterin category C by follow up monitoring (15) patients =25% required subsequent excisional surgery (Milligan Morgan). Five of them had mucosal prolapsed, three had attacks of bleeding and five developed external piles

Table(5) shows the statistically significant reduction in the cost expressed by reduction in the durations of hospital stay period and sick leave in days in category B as compared to category A. Category C completed their treatment in two or three group outpatient sessions but two of this group needed hospitalization one for 2days because of severe pain and other for 4 days because of

Table 1 : Shows the age distribution of patients under study.-

Age (years)	Category A	Category B	Category C
<20	1	0	
21——30	18	8	10
31——40	21	20	10
41——50	19	20	20
51——60	1	10	10
61——70	0	2	4
71——80	0	0	6
Total	60	60	60

The most affected age group treated by this study were(41-50)years. Age studied were (19—80)years. Mean age was 35 years. Total number of patients was 180.

Table 2 : Shows gender distribution under study

Gender No.	No.	%
Male	144	80
Female	36	20
	180	100

Table 2 shows the gender distribution of patients under study that male/female ratio equal to 4:1

secondary bleeding. Hospital stay period and sick leaves in days bleeding. Hospital stay period and sick leaves in days.

The most affected age group in this study was (41—50) years. The male/female gender ratio was 4/1 these results were compatible with (Sneider and Maykel, 2010), (Rivadeneira *et al*, 2011). Classical excisional hemorrhoidectomy being the most (aggressive)approach of surgical interventions of hemorrhoids likely methods the most satisfactory overall long-term result in term of cure. However, this modality of pile therapy needs rigorous requirements on both hospital and patient. In comparison to more conservative modalities of treatment used in our study (pile suturing and rubber band ligation procedures).Excisional hemorrhoidectomy was found that its use over a large number of patients is not so comfortable. It should perhaps be confined to those patients with complicated third-degree piles or failure of more (conservative) approaches of treatment (MacRae and McLeod, 1995). From our results it seems that conservative surgical techniques for second and non-

Table 3 : Shows the incidence of early postoperative complications

	Category A *Excision and ligation*		Category B *Pile suture*		Category C *Band ligation*	
Complication	No.	%	No.	%	No.	%
Severe pain	19	31.7	4	6.7	3	5
Retention of urine	12	20	0	0	0	0
Bleeding						
Reactionary	1	1.7	0	0	0	0
Secondary	0	0	0	0	1	1.7
A vs B p<0.01	AvsC P<0.001		BvsC p>o.50		A vs B or C p<0.01	

Table 4 : Show the incidence of the late postoperative complications:-

	Category A		Category B		Category C	
Complication	No	%	No	%	No	%
Anal stenosis	6	10	0	0	0	0
Recurrence	0	0	3	5	15	25
A vs B or C P>0.10	A vs B P>0.10		A vs Cp<0.001		B vs C p<0.001	

Table 5 : Show the cost elements in the term of durations of hospital stay period and sick leave in days

	A Excision ligation	B Pile suture	C Band ligation
Duration of hospital stay	2—4	2—6	0—2
Mean	7.4	3.5	0.1
Duration of sick leave	21—30	2—6	3—7
Mean	22.3	8.3	5.5
	A vs B P<0.001	A vs C P<0.001	B vs C P<0.001

complicated third-degree piles are preferable to the excision ligation method for the following reasons;

1. Milder postoperative pain
2. Decreased number and less severity of urinary retention
3. Milder bleeding Per-operative and postoperative
4. Shorter operative time
5. Shorter hospitalization period
6. Decreased duration of sick leaves
7. Avoidance of serious reverse results like complications of late postoperative anal stenosis. (Yeung and D'Souza, 2013). Agree with our results. The pile suture technique is superior to rubber banding technique in this study because of the statistically significant reduction in recurrence rate. Also, large external hemorrhoids and or skin tags which are major discomfort to our patients can be excised with at the same time. These results agree with (Zherlov *et al*, 2008). Rubber band ligation if used in late second degree piles may lead to problems with external piles and skin tags and if used in early second degree piles there will not be enough tissue to pull on and this will lead to severe pain. This means that the rubber band ligation method should be applied only to highly selected cases of second-degree piles. It is true that patients in category C were treated as outpatients without anesthesia whereas the mean hospital stay for patients in category B was 3.5 days yet the other advantages of pile suture far outweigh this point. Our results were similar to some studies (Nienhuijs and de Hingh, 2009). Which proved that pile suture were best conservative surgical techniques for second and non-complicated third-degree hemorrhoids. Some studies proved different results from our results like (Gagloo *et al*, 2013). Where it preferred excision – ligation and (Ganz, 2013). Which preferred band ligation.

Ethical clearance

Taken from the scientific committee in Department of Maxillofacial Surgery, College of Dentistry, Kerbala University, Iraq; in their reference no.89 at 2nd. October 2017.

CONCLUSION

Pile suture can be considered as less invasive and can be used over a large number of patients who have second and non-complicated third-degree piles. It does (not expose) the sphincters; nor does it involve the (stripping or excision of the mucous membrane) which explains marked reduction in the incidence of post-operative pain; urine; retention; bleeding; and the avoidance of anal stenosis. For the same causes; as other associated lesions such as fissure or fistula-in-ano can be dealt with at the same time; carrying great benefit to the patients since it saves them from further(revisional) surgery. The compassion between different surgical interventions gives a complete understating of the advantages and disadvantage of each technique as well as the most recommended one (Al-Tai, 2019). So, the pile suture technique was recommended in the management of piles in this study.

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