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A Comparative Study on Different Management Procedures of Haemorrhoids

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Abstract

Introduction: Turell (1960) stated that 70% population suffers from haemorrhoids and 40% needs surgical treatment. The treatment of haemorrhoids is as old as the age of man and many different treatments have been described, none of which is entirely satisfactory.

Material and Methods: A total of 50 patients of Haemorrhoids were studied who were admitted to department of surgery, RNT Medical College and attached MB Government Hospital, Udaipur, Rajasthan, India. All patients were managed by one of the treatment modalities.

Result: Mean age was 40 years with male preponderance. Common presenting symptoms were bleeding per Rectum, constipation and prolapse of pile mass. Most of the patients presented late to hospital (1–6 months). Most of the cases belonged to II and III degree haemorrhoids. At presentation 62% patients were anaemic (Haemoglobin <12 Gram %). A Total of 16 patients were managed by non-operative modalities while 32 were managed by various surgical operations. Most of the Grade I or II patients were managed by non-operative measures while all the Grade III and IV patients were operated for their disease. Post-procedural complications were a few and mostly limited to pain or urinary retention.

Conclusion: Non-operative techniques like Sclerotherapy and conservative for first and second degree haemorrhoids gives excellent results. Surgical treatment like open and closed haemorrhoidectomy remains the ideal treatment option for third and fourth degree haemorrhoids and recurrent cases.

Keywords: Piles; Haemorrhoids; Sclerotherapy; Plication; MIPH; haemorrhoidectomy.

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Introduction

Haemorrhoids are highly vascularised 'cushions' forming discrete masses of thick sub-mucosa containing blood vessels, smooth muscles, elastic and connective tissues limited to the anal canal and perianal area. Turell (1960) stated that 70% population suffers from haemorrhoids and 40% needs surgical treatment.[1]

Internal haemorrhoids (Greek: haima=blood, rhoos=flowing; synonym: piles, Latin: pila=a ball) are symptomatic anal cushions and characteristically lie in the 3, 7 and 11 o'clock positions (with the patient in the lithotomy position). The prevalence of haemorrhoids when patients are assessed proctoscopically far outweighs the prevalence of symptoms, and the term should only be used when patients have symptoms referable to them.[2] The exact cause of haemorrhoids remains unknown. Numerous factors contribute to haemorrhoidal diseases such as heredity, anatomical features, nutrition, occupation, climate, psychic factors, and senility, endocrine changes, irritation from drugs or food, infection, increased intra-abdominal pressure, constipation and prolonged squatting.

When emphasizing the prime importance of straining at stool as direct cause of haemorrhoids, it is concluded there is no evidence that any other aetiological factor is of significance in causation of piles.[3] Basic of all these factors is the engorgement and subsequent prolapse of the enlarged anal cushion.[2,4] Haemorrhoids may be also considered external or internal; the diagnosis is based on the history, physical examination and proctoscopy. External haemorrhoids are covered with anoderm and are distal to the Pectinate line; they may swell causing discomfort and difficult hygiene, but causes severe pain only if actually thrombosed. Internal haemorrhoids cause painless, bright red bleeding or prolapse associated with defecation. The treatment of haemorrhoids is as old as the age of man and many different treatments have been described, none of which is entirely satisfactory.[5]

The treatment modalities are -

(A) Non-operative or conservative management
   1. Dietary and life style modifications: Consumption of high-fiber diet and Exercise/Yoga to prevent constipation.
   2. Medical Management

(B) Minor surgical procedures:
   1. Injection treatment (Sclerotherapy).
   2. Rubber band ligation.
   3. Manual dilatation.
   4. Cryotherapy.
   5. Infrared coagulation.

(C) Major surgical procedures:
   1. Milligan – Morgan open haemorrhoidectomy.
   2. Ferguson closed haemorrhoidectomy.
   3. Doppler-guided Haemorrhoidal artery ligation (DGHAL).
   4. Stapler haemorrhoidectomy (Minimally Invasive Procedure for Haemorrhoids - MIPH).

The treatment of haemorrhoids depends upon the severity of symptoms, skill and expertise of surgeon, availability of instrument and affordability of patient. The first and second degree haemorrhoids can be treated by conservative or Medical management or by minor surgical procedure; whereas the third and fourth degree always requires surgical treatment like haemorrhoidectomy.

Conservative management has been advocated for prolapsed thrombosed internal haemorrhoids. Treatment of thrombosed external haemorrhoids depends on the point at which the patient seeks help. After 72 hours, the discomfort of any surgery often exceeds the relief provided by it and in this phase of resolution, surgery should be avoided. Within the first 72 hours though, tender thrombosed external haemorrhoids can be surgically removed.[6]

Material and Methods

A total of 50 patients were studied who were admitted to department of surgery, Rabindranath Tagore Medical College and attached Maharana Bhupal Government Hospital, Udaipur, Rajasthan, India during May, 2017 to December, 2019. All patients were managed by one of the treatment modalities that were available at the hospital (Conservative/ Sclerotherapy / Haemorrhoidectomies).

Inclusion criteria

All patients presented with haemorrhoids (category I-IV) and associated anorectal pathology such as fissure.

Exclusion criteria

Patients presented with piles secondary to pregnancy or other disease; or anorectal neoplasm.

Results

The patients were in the range of 20–84 years of age (mean age 40 years) and the majority (54%) of cases were between 31–50 years of age. The incidence of haemorrhoids apparently increases with age.

Main presenting symptoms were Bleeding PR, Anaemia, Pain at anal region and Constipation. (Table 1).

Table 1: Clinical Presentation.

Presentation	Number of cases	Percentage
Bleeding per Rectum	39	78
Anaemia	31	62
Pain at anal site	30	60
Chronic Constipation	25	52
Prolapse of piles	26	52
Discharge per rectum	14	28
Chronic Cough	13	26

Mean duration of symptoms in study was 1–6 months. Most of the patients (62%) were anaemic (Haemoglobin <12 Gram %) at time of presentation.

Most of the patients presented with second or third degree piles. (Table 2).

Table 2: Degree of haemorrhoids.

Degree of Piles	Number of cases	Percentage
First	07	14
Second	17	34
Third	15	30
Fourth	11	22
Total	50	100

Most common position of piles were 3 O'clock > 7 O'clock. Secondary piles were less common as compare to primary.

A Total of 16 patients were managed by non-operative modalities while 32 were managed by various surgical operations. (Table 3).

Table 3: Treatment Modalities.

Treatment Modality	Total cases	Percentage
(A) Non Operative	16	32
1 Conservative	8	16
2 Sclerotherapy	8	16
(B) Operative	34	68
1 Lord's Anal dilatation	3	6
2 Haemorrhoidectomy	19	38
4 MIPH	6	12
5 Plication	6	12
Total	50	100

Most of the Grade I or II patients were managed by non-operative measures while all the Grade III and IV patients were operated for their disease (Table 4).

Table 4: Types of Treatment Modalities according to grades of piles.

Treatment	Grade I	Grade II	Grade III	Grade IV	Total
Conservative	5	3	–	–	8
Sclerotherapy	1	7	–	–	8
Lord's Anal dilatation	1	2	–	–	3
Haemorrhoidectomy	–	3	7	9	19
MIPH	–		4	2	6
Plication	–	2	4		6
Total	7	17	15	11	50

Post-procedural complications were Post-operative pain (58%), Retention of urine (24%), Wound infection (18%) and mild bleeding (12%).

Most of the Post-procedural complications were encountered in the patients who were managed surgically. (Table 5).

Table 5: Treatment Modalities and associated complications.

	Treatment Modalities	Total cases	Pain	Retention of Urine	Wound infection	Bleeding
1	Conservative	8	0	0	0	0
2	Sclerotherapy	8	4	0	0	1
3	Lord's Anal dilatation	3	2	0	0	0
4	Haemorrhoidectomy	19	15	7	5	4
6	MIPH	6	4	1	2	1
7	Plication	6	4	4	2	1
	Total	50	29	12	9	6

Discussion

The patients were in the range of 20–84 years of age (mean age 40 years) and the majority (54%) of cases were between 31–50 years of age. The incidence of haemorrhoids apparently increases with age. In study by Bhuiya[4] the incidence was more (48%) in younger patients in age between 20–30 years while it was similar in study by Sanjeev.[7]

The incidence was higher in males (82%) than females similar to other studies.[4,7,8,9]

Patients presented to hospital with various complaints and symptoms. (Table 1). It was similar to other studies, though few did not report constipation[5,9,10] or prolapse.[4,7]

Mean duration of symptoms in study was 1–6 months (34%) which was similar to other study.[7] With respect to duration of symptoms in this study, it was noticed that most of the patients were delayed in presenting to the hospital. Main reason behind this was hesitancy, social reasons and negligence.

Most of the patients (62%) were anaemic (Haemoglobin <12 Gram %) at time of presentation. Even, few (14%) were severely anaemic (Haemoglobin <5 Gram %) and required multiple blood transfusions prior to surgery.

Patients presented to hospital with various degrees of haemorrhoids. (Table 2).

In this study, most of the patients presented with second or third degree piles, while other studies.[7,8] reported that most of the patients presented with first or second degree piles. Reason behind this may be due to delayed presentation of the patients.

In this study group most common position of piles were 3 O'clock > 7 O'clock. Secondary piles were less common as compare to primary.

A Total of 16 patients were managed by non-operative modalities while 32 were managed by various surgical operations. (Table 3).

Most of the Grade I or II patients were managed by non-operative measures while all the Grade III and IV patients were operated for their disease (Table 4).

Post-procedural complications were Post-operative pain (58%), Retention of urine (24%), Wound infection (18%) and mild bleeding (12%).

Most of the Post-procedural complications were encountered in the patients who were managed surgically. (Table 5).

In compare to other study[11] incidence of retention of urine was less and incidence of other complication were slightly more in our study.

Sclerotherapy is the better initial treatment option for first degree haemorrhoids which has good acceptable success rate compared to other more invasive and painful procedures. But multiple injections may be required and not suitable for higher degree pile masses. MIPH is a safe, rapid, and convenient surgical remedy for grade III and grade IV Haemorrhoids with low rate of complications, minimal post-operative pain, and early discharge from the hospital. But higher cost of procedure in this hospital is major drawback for poor patients. Surgery (haemorrhoidectomy) remains the gold standard treatment for third and fourth degree haemorrhoids and the patients for whom other less invasive options failed to cure the disease. Overall Cure rate is 90%.But it is painful procedure with more bleeding and longer duration of stay.

Conclusion

Non-operative techniques like Sclerotherapy and conservative for first and second degree haemorrhoids gives excellent results. Surgical treatment like open and closed haemorrhoidectomy remains the ideal treatment option for third and fourth degree haemorrhoids and recurrent cases.

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