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RESEARCH ARTICLE

MANAGEMENT OF HEMORRHOIDS WITH VARIOUS APPROACHES: OUR EXPERIENCE

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ABSTRACT

Genetic Hemorrhoids is very common Ano-Rectal condition with high prevalence and there are large number of treatment modality available to treat this frequently occurring condition

Materials and Method: This prospective was carried out in department of surgery Al-Ameen medical college bijapur from 2006 to 2016. It includes 400 patients of haemorrhoids treated with different modality of treatment (injectionsclerotherapy, rubber band ligation, ligation and excision hemorrhoidectomy and circular stapelerhemorrhoidectomy).

Results: 80% Group 'A' patients had mild pain postoperatively lasting for 1 day, RBL group had moderate pain in 76% lasting for 2-3 days. 80% Group 'C' patients had moderate pain for 2-3 days where as 70% patients in group 'D' had only mild pain for < 3 days. Retention of urine was seen in 33.3% of Group 'C' patients. Painful bowel action was seen in 66.7% of ligation and excision group. Most of the patients in INJ and RBL group went home on same day. In excision and ligation group patients stayed for 2-5 days and average of 1 day in stapled group. At 6 months follow up bleeding was seen in 33.3% of patients in Group 'A', 19% of patients in group 'B'. Prolapse was seen in 5.5% of patients in group 'A', 9.5% of patients of group 'B'. At one year follow up 40%, 25% and 8% of patients in group 'A', group 'B' and group 'C' respectively had bleeding. Prolapse was present in 10%, 16.7% and 8% of group 'A', 'B' and C respectively.

CONCLUSION: Injection sclerotherapy and rubber band ligation to be the first option in the treatment of hemorrhoids, later if necessary by operative procedure.

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INTRODUCTION

Hemorrhoids are considered one of the most frequent disease of the anal region with a high prevalence (Linares Santiago, 2001). They affect millions of people around the world and represents a major medical and socioeconomic problem (Loder, 1994). Haemorrhoids is defined as the symptomatic enlargement and distal displacement of the normal anal cushions (Loder, 1994). For years the theory of varicose veins which postulated that haemorrhoids were caused by varicose vein in the anal canal, had been popular but now it is obsolete because haemorrhoids and anorectal varices are proven to be distinct entities (Goenka, 1991), in fact, patients with portal hypertension and varices do not have an increased incidence of haemorrhoids (Goenka, 1991). Today the theory of sliding anal canal lining is widely accepted (Thomson, 1972). This proposes that haemorrhoids develop when the supporting tissues of the anal cushions disintegrates or deteriorate. Hemorrhoids are therefore the pathological term to describe the abnormal downward displacement of the anal cushions causing venous dilatation. There are typically three major anal cushions, located in the right anterior, right posterior and lateral aspect of the anal canal and various numbers of minor cushions lying between them (Thomson, 1975). Multiple factors have been claimed to be the etiologies of haemorrhoidal development, including constipation and prolonged straining. Constipation and prolonged straining are widely believed to cause hemorrhoids because hard stool and increased intra abdominal pressure could cause obstruction of venous return resulting in engorgement of the hemorrhoidal plexus (Loder, 1994). Recent evidence questions the importance of constipation in the development of this common disorder (Johanson, 1990; Johanson, 1994 and Pigot, 2005). Some reports suggested that diarrhoea is a risk factor for the development of hemorrhoids (Johanson, 1994). Increased in straining for defecation may precipitate the development of symptoms such as bleeding and prolapse in patients with a history of hemorrhoidal plexus (Loder, 1994). The most common manifestation of hemorrhoids is painless rectal bleeding associated with bowel movement (Aigner, 2009). Prolapsing hemorrhoids may cause perineal irritation or anal itching due to mucous secretion or fecal soiling (Varut Lohsiriwat, 2012). The definitive diagnosis of hemorrhoidal

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disease is based on precise patient history and careful clinical examination. Assessment should include digital examination and anoscopy in the left lateral position (Harish, 2008).

Golinghers classified internal hemorrhoids into (American Gastroenterological Association medical position statement, 2004)

Grade 1 : Haemorrhoids prolapsing upto dentate line
Grade 2 : Haemorrhoids prolapsing out of anal verge but reposing spontaneously
Grade 3 : Haemorrhoids which prolapsed out at any time and have to be manually replaced.
Grade 4 : Permanently prolapsed haemorrhoids which cannot be reposited.

There are large number of treatments medical support instrumental techniques (rubber band ligation, sclerosis, infrared photocoagulation) and a variety of surgical techniques (milligan morgan, longo and other) that have to be used in about 10% of cases (Enciclopedia Medico-Quirurgica, 1989), Non surgical methods aim at tissue fixation (sclerotherapy, cryotherapy, photocoagulation, laser) or fixation with tissue excision (rubber band ligation) (Vassilios, 2000).

Our study goals include

- To identify the preventable precipitating factors of hemorrhoids
- To identify the symptoms of presentation of hemorrhoids
- To identify the post operative complication of hemorrhoid
- To evolve the optimum choice of management for different degree of haemorrhoid.

MATERIALS AND METHODS

This prospective comparative study was conducted in the department of surgery of Al-Ameen medical college, Bijapur, over period 10 years (2006 to 2016). A study of national approach in the management of haemorrhoids. 400 cases were selected from the patients attending the OPD of surgery department of Al-Ameen medical college hospital, Bijapur with anorectal complaints. A detailed history was taken from each patient and thorough examination was performed with emphasis on digital rectal examination and proctoscopy. After making a provisional diagnosis of haemorrhoids those patients who required definitive treatment were included in the study. The patients were counselled and the treatment modalities explained to them with their benefits, complications, precautions and follow up protocol. A written consent was obtained from each patient. Based on the degree of haemorrhoids, its associated complications and medical systemic diseases, the smaller degree of haemorrhoids were subjected to conservative line of management which included injection sclerotherapy and rubber band ligation, the larger degree of haemorrhoids were managed with operative procedures namely haemorrhoidectomy and circular stappled haemorrhoidectomy. The patients were allocated into following treatment modality groups.

Group A : Injection sclerotherapy
Group B: Rubber band ligation
Group C: Ligation and excision haemorrhoidectomy
Group D: Circular stapled haemorrhoidectomy

The patients with systemic diseases who were high risk candidates for surgery under anaestheisa were treated with conservative management. The patients were evaluated postoperatively for the factors like immediate postoperative pain, retention of urine, first bowel action, discomfort, anal incontinence, minor bleeding, reactionary and secondary haemorrhage, serous discharge. Follow up examination was carried out at 15 days, 1 month, 3 months, 6 months and 1 year. The patients immediate reactions to the treatment were recorded at the time and at the follow up visits any ill effects like anal stenosis, anal skin tags, symptomatic recurrence as well as symptomatic improvement were elicited and an objective assessment was made of the state of haemorrhoids.

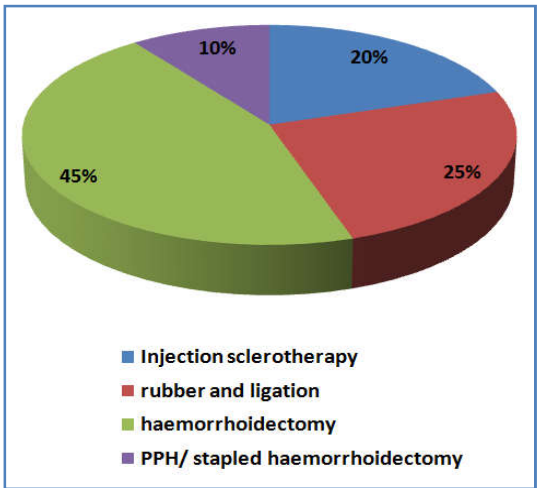
RESULTS

The present study was conducted at Al-Ameen medical college hospital and the district hospital, Bijapur in which 400 cases were enrolled from patients attending surgical outpatient clinical over the period of 6 years.

The patients were allocated into following treatment groups:

Group A: injection sclerotherapy
Group B: rubber band ligation
Group C: ligation and excision
Group D: circular stapled haemorrhoidectomy

Out of the patients in this study 80 cases were in Group A (20%), 100 cases were in Group B (25%), 180 cases were in Group C (45%) and 40 cases were in Group D (10%) shown in Fig.



Maximum cases belonged to 21 – 30 years of age in all the 4 groups with the total of 26% patients. Next most common group was 31 – 40 years group with 24% of patients. In all groups the number of male patients was significantly more than female patients. There were 69% of male patients and 31% of female patients in the study. 96% of the patients had bleeding, 80% had prolapsed, 23% had pain of some nature and 19% were having discharge, 46% of the patients had constipation. Injection sclerotherapy (Group A) was mainly used in Grade I and Grade II haemorrhoids. Rubber band ligation (Group B) was mainly used in Grade II haemorrhoids. Ligation and excision (Group C) was mainly used in Grade II and Grade III haemorhoids.

Distribution of cases according to age in four groups

Age Group (years)	Group A		Group B		Group C		Group D		Total %
	No.	%	No.	%	No.	%	No.	%	
< 20	0	0%	4	4%	4	2.2%	0	0	2%
21 – 30	20	25%	16	16%	64	35.5%	4	10%	26%
31 – 40	28	35%	32	32%	36	20%	0	0%	24%
41 – 50	8	10%	20	20%	48	26.6%	16	40%	23%
51 – 60	4	5%	20	20%	20	11.1%	12	30%	14%
> 61	20	25%	8	8%	8	4.4%	8	20%	11%
Total no. of cases	80		100		180		40		100%

Distribution of cases according to sex in four groups

Groups	Male		Female	
	No. of cases	%age of total	No. of cases	%age of total
Group A	56	70%	24	30%
Group B	76	76%	24	24%
Group C	116	64.5%	64	35.5%
Group D	28	70%	12	30%
Total	276		124	

Symptomatology of the cases under study

Symptoms	No. of Cases
Bleeding	384
Proplapse	320
Pain	92
Discharge	76
Constipation	184

Distribution of cases according to the grade of haemorrhoids in four treatment groups

Group	Group I		Group II		Group III		Group IV	
	No. of cases	%	No. of cases	%	No. of cases	%	No. of cases	%
Group A		70%		25%		5%		0%
Group B		24%		56%		20%		0%
Group C		0%		46.7%		51.1%		22%
Group D		0%		20%		70%		10%
Total	80	20%	168	42%	144	36%	8	2%

Distribution of hospital stay in four treatment groups

Group	Daycare		1 day		2 – 5 days		> 5 days	
	No.	%	No.	%	No.	%	No.	%
Group A	60	75%	20	25%	0	0%	0	0%
Group B	52	52%	40	40%	8	8%	0	0%
Group C	0	0%	0	0%	132	73.3%	48	26.7%
Group D	0	0%	32	80%	8	20%	0	0%

Time of return to normal activity in four groups

Group	< 1 week		1 – 2 weeks		2 -3 weeks		> 3 weeks	
	No.	%	No.	%	No.	%	No.	%
Group A	72	90%	8	10%	0	0%	0	0%
Group B	12	12%	88	88%	0	0%	0	0%
Group C	0	0%	12	6.7%	148	82.2%	5	11.1%
Group D	8	20%	28	70%	4	10%	0	0%

Requirement of repeat or additional treatments

Treatment	Group A		Group B		Group C		Group D	
	No.	%	No.	%	No.	%	No.	%
Repeat	32	40%	36	36%	0	0%	0	0%
Additional	8	10%	4	4%	8	4.4%	0	0%

Circular stapled haemorrhoidectomy (Group D) was used in Grade III haemorrhoids mainly. Most of the patients in Group A underwent day care procedure. Most the Group B patients went home on the same day or stayed in hospital 1 day. Group C patients stayed for 2 – 5 days in the hospital and group D patients stayed for 1 day.

Most of the group A patients returned to normal activity within a week and group B patients within 1 – 2 weeks. Most Group C patients took longer time to return to normal activity in 2 – 3 weeks whereas Group D patients mostly returned in 1 – 2 weeks. 40% of the patients in Group A and 36% of Group B patients required repeat treatment.

Additional treatment was required by 10% of Group A, 4% of Group B and 4.4% of Group C patients. None of the Group D required extra treatment. Most of the patients in Group A (85%), Group B (64%) and Group C (80%) had normal first bowel action. Painful bowel action was seen with 66.7% of Group C patients.

DISCUSSION

Haemorrhoids are one of the common ailments of the mankind, the term haemorrhoid and piles are used quite interchangeably.

Characteristics of first bowel movement after treatment

First bowel action	Group A		Group B		Group C		Group D	
	No.	%	No.	%	No.	%	No.	%
Normal	68	85%	64	64%	52	28.9%	32	80%
Painful	12	15%	36	36%	120	66.7%	8	20%
With bleeding	0	0%	0	0%	8	4.4%	0	0%

Characteristics of post operative pain in four groups

Character of pain		Group A		Group B		Group C		Group D	
		No.	%	No.	%	No.	%	No.	%
Nature of pain	Mild	64	80%	16	16%	24	13.3%	2.8	70%
	Moderate	16	20%	76	76%	144	80%	8	20%
	Severe	0	0%	8	8%	12	6.7%	4	10%
Duration of pain	1 Day	56	70%	16	16%	12	6.7%	16	40%
	2-3 Days	24	30%	72	72%	136	75.6%	20	50%
	> 3 Days	0	0%	12	12%	32	17.8%	4	10%

Other post operative complaints in four groups

Post operative complaints	Group A		Group B		Group C		Group D	
	No.	%	No.	%	No.	%	No.	%
Retention of urine	0	0%	0	0%	66	33.3%	0	0%
Reactionary Haemorrhage	0	0%	4	4%	12	6.7%	4	10%
Secondary Haemorrhage	0	0%	0	0%	4	2.2%	0	0%
Flatus incontinence	0	0%	0	0%	16	8.9%	0	0%
Fecal incontinence	0	0%	0	0%	12	6.7%	0	0%
Serious discharge	0	0%	8	8%	12	6.7%	0	0%

Follow up symptoms in four treatment groups

Follow up symptom		Group A		Group B		Group C		Group D	
		6 months n=18	1 year n=10	6 months n=12	1 year n=12	6 months n=38	1 year n=25	6 months n=9	1 year n=6
Bleeding	No.	26.64	32	19	25	0	14.4	0	0
	%	33.3%	40%	19%	25%	0%	8%	0%	0%
Prolapse	No.	4.4	8	9.5	16.7	0	14.4	0	0
	%	5.5%	10%	9.5%	16.7%	0%	8%	0%	0%

Associated bleeding was seen with only 4.4% of Group C patients. Injection sclerotherapy (Group A) patients mostly had pain of mild nature (80%) lasting for 1 day only (70%). Rubber band ligation patients (Group B) had pain of moderate nature (76%) lasting for 2-3 days (72%). Most of haemorrhoidectomy (Group C) patients (80%) had pain of moderate nature lasting for 2-3 days (75.6%). 6.7% of the haemorrhoidectomy (Group C) patients had severe pain. Circular stapled haemorrhoidectomy (Group D) patients mainly had mild pain (70%) lasting for < 3 days most of them. 4& of the patients in the rubber band ligation (B) group had reactionary hbaemorrhage and 8% had serious discharge. Maximum complications were seen in haemorrhoidectomy (C) group. 33.3% had retention of urine and 8.9% had flatus incontinence. After circular stapled haemorrhoidectomy only 1 had reactionary haemorrhage. At 6 months follow up 33.3% of Group A patients and 19% of Group B patients had bleeding, prolapsed was present in 5.5% of Group A and 9.5% of Group B. At 1 year follow up 40% of Group A and 25% and 8% of Group C patients had bleeding. Prolapse was present in 10% of Group A, 9.5% of Group B and 8% of Group C patients at 1 year. Group D were asymptomatic at 6 months and 1 year of follow up during the study.

At least 50% of the population above the age of 50 years show some degree of haemorrhoid formation but very few patients have symptoms and seed medical help. The incidence of haemorrhoids increases with age but may be asymptomatic in most of the patients. Most of the authors have reported the mean age of haemorrhoids to be between 30-50 years. In present study 2% of the patients were less than 20 years, 26% of the patients belonged to 21-30 age group, 24% of the patients belonged to 31-40 age group. 23% of the patients in 41-50 group.

Authors (M : F)	Age	Sex
John A Murie (1980)	50	M > F
T Ruffin Hood (1971)	45	M > F

Males are more commonly affected than females by haemorrhoids, though some authors have reported equal incidence in both sexes. In earlier times haemorrhoids were thought to be due to the varicosity of the haemorrhoidal plexus or due to hyperplasia of the corpus davernosum recti (Steward, 1962 and Parks, 1956). The nealy available evidence suggests that haemorrhoids are nothing more than a sliding downwards of a part of anal canal with anal cushion which become

exaggerated with pushing (WHC Thompson) (Thomson, 1975). Change in diet from high to low residue diet is associated with increased incidence of haemorrhoids. Straining at stools with constipation causes increased pressure in the internal haemorrhoidal plexus the increased pressure is aggravated by compression of veins by hard stools (Parks, 1956). Dietary fibre and bulking agents have also been advised for the patients with haemorrhoids to avoid excessive straining at stool, but the place of such agents as principal means of treatment has not been established conclusively (Keighley, 1979). In our series 46% of patients were suffering from constipation which can partly explain the aetiology in them but may also be the effect of haemorrhoids in few of them. Two cardial symptoms of haemorrhoids are bleeding and prolapsed. Bleeding is the most symptom which may be seen as a streak of blood on the stool of like "Splash in pain". Bleeding in haemorrhoidal disease in the chief complaint, as the dilated venous plexuses are fragile and are traumatized easily by even minimal strain. 96% of the patients in our study presented with bleeding as their chief complaint which may be due to the fact that patients report only when they are symptomatic and are alarmed by such a striking symptom.

Prolapse as a rule is a late symptom with slight reducible protrusion to finally permanently prolapsed haemorrhoids. It was present in 80% of our patients which were mainly of reducible variety. This is one of the main presenting symptom as patients present late, only when they are inconvienced by frequently prolapsing haemorrhoids and soiling of underclothing. Pain is not usually considered as a symptom of uncomplicated haemorrhoids. A slight amount of discomfort was present in many patients but was significant in 23% of our patients. Prolapsing haemorrhoids nipped by external sphincter caused considerable pain and congestion referred by patients as "Acute attack of piles" (Walls, 1976). Mucoid discharge is a frequent accompaniment of prolapsing haemorrhoids and is more severe in permanently prolapsed haemorrhoids due to exposed anal mucosa. Pruritus follows discharge due to the sodden skin. In our study 19% of patients had discharge.

Evaluation : Haemorrhoids assessed by inspection and proctoscopy

Author	1st grade	2nd grade	3rd grade	4th grade
ADF Walls	15%	48%	37%	-
Present study	20%	42%	36%	2%

Haemorrhoids presented mainly in the 2nd and 3rd grade which may be due to tolerance of symptoms due to the fear for surgery and also due to hesitation and embarrassment.

Management of haemorrhoids: various modalities available for the management of haemorrhoids namely injection sclerotherapy, Rubber band ligation, Cryotherapy dilation. Photocoagulation, Laser, haemorrhoidectomies including stapled. All these modalities are not entirely perfect and each method has its own advantages and disadvantages. Hence it's best of individualize the treatment depending on the degree of haemorrhoids. We treated 20% of the patients with injection sclerotherapy, 25% with rubber band ligation, 45% with ligation and excision and 10% with circular stapled haemorrhoidectomy. In the present study we used injection in the 1st and 2nd degree haemorrhoids. The treatment was generally painless and well tolerated without complications. 40% of the patient's required repeat treatment and 10% required surgical excision due to failure of the treatment.

Injection sclerotherapy : Milligan (1939) reported 98% cure rate in 1st degree haemorrhoids and 75% in 2nd degree haemorrhoids.

Author	Cure rate	Repeat Treatment	Additional
F Greca (1981)	70%	30%	14%
PC Gartell (1985)	70%	25%	-

In the present treatment the cure rate was 81%, 36% of the patients required repeat treatment, while 4% needed additional treatment.

Rubber band ligation: in present study we mainly used rubber bands in second degree haemorrhoids.

Author	cure rate	repeat Rx	Additional Rx.
John A Murie (1980)	70%	-	-
F Greca (1981)	64%	37%	15%

This treatment was uncomfortable for most of the patients, with 76% having moderate pain, lasting for 2 - 3 days in 72% of them. The return to normal activity was between 1-2 wk. in most of them. However these disadvantages were rewarded by better objective end results, 81% of patients at 6 months and 75% at 1 year were cured of their symptoms. 36% required repeat treatment and 4% had to undergo haemorrhoidectomy. Repetition of treatment is more commonly required following conservative procedures, which signifies high recurrence following such procedures. But at the same time it measures the patient's compliance for repeat treatment. When it becomes apparent that the repeated treatment will be ineffective to produce long term results, it's then the additional treatment is advised in the form of haemorrhoidectomy. The evaluations of conservative treatments indicate that long term results are disappointing in case of injection sclerotherapy whereas they were generally encouraging after band ligation. So for smaller degree haemorrhoids these two methods can be considered as first line treatment. PC Gartel *et al* recommended that bands are superior to injection in the treatment of second degree haemorrhoids (Gartell, 1985).

Operative treatments: although the complications were different in conservative and surgical treatments, the number of patients suffering from complications is similar. The final satisfaction with haemorrhoidectomy is higher than the conservative method. Thus conservative treatments should be carried out first reserving haemorrhoidectomy for failures. Surgical haemorrhoidectomy (ligation and excision):- Benett RC reported late results of haemorrhoidectomy over 5 years and noted symptomatic recurrence in 5% of patients who required subsequent treatment (Bennett, 1963).

Author	cure rate
John A Murie	97%
present study	92%

In present study ligation was mainly used for 2nd and 3rd degree haemorrhoids. 80% of patients had moderate pain. Pain lasted for 2-3 days in 75% of patients. None of the patients required repeat treatment and only 2 patients required injection treatment later. Patients took longer (2-3 weeks) to return to

normal activity but 100% were symptom free at 6 month 92 % at 1 year.

Stapled haemorrhoidectomy: in present study stapled haemorrhoidectomy was used for grade 3 haemorrhoids mainly. 70% of patients had mild pain only. In 90% of patients the pain lasted for less than 3 days. None of the patients required repeat or additional treatment and at follow up 100% of the patients were cured. Haemorrhoidectomy is a popular and definite treatment method which is attributed to its long lasting results even though it's associated with post-operative pain, longer hospital stay and further time off work. Some of these shortcomings of conventional procedure are reduced by stapled haemorrhoidectomy which results in less pain due to the operation being performed in insensitive area of anal canal above the dentate line. Immediate post treatment pain in any form usually accompanies every treatment but differs in severity. Its subjective phenomenon which can be classified as mild, moderate or severe. Conservative methods are generally considered painless than operative methods. Goligher concluded that treatment by injections is generally painless and tolerated well. With band ligation the post treatment pain is more common (John Goligher, 1992). William's (1975) reported that 3 out of 39 patients had severe pain (Williams, 1975).

Alexander William's reported minor discomfort in 62% of patients following rubber band ligation. In present study following injection 80% patients had mild pain only lasting for less than 1 day in 70 % of them. In band ligation 76% of patients had moderate pain lasting for 2-3 days in 72% of them (Williams, 1975). Goligher showed that moderate to severe pain always accompanies ligation but was greatly reduced by anal stretching intra-operatively JM Watts *et al* (1965) reported that there is no difference in the severity of pain between different techniques of haemorrhoidectomy although each operation was more painful females (Watts, 1964). Mehigan *et al* (2000) concluded that stapled haemorrhoidectomy was associate with less pain as compared to conventional haemorrhoidectomy (Mehigan, 2000). In present study ligation and excision caused moderate pain in 80% of patients lasting for 2-3 days in 75% of them. After stapled procedure pain was mild in 70% and lasted les than 3 days in 90% of the patients. Amongst the conservative methods injection sclerotherapy caused mild discomfort only as the injection in submucosa causes minimal trauma only. Rubber band ligation is considerably painful due to the ulcer formation and subsequent fibrosis. Sometimes band are applied close to the dentate line which can explain excruciating Pain after some of the band applications.

relieved by warm water bag. Only one patient of ligation and excision require catheterization. Non of the patients in other groups had this problem. Bennett RC reported that less than 0.7% patients after haemorrhoidectomy needed catheterization (Bennett, 1963). Retention of urine is more commonly seen following operations in the perianal regions especially when done under spinal anaesthesia, It's mainly due to the reflex spasm of the urethral sphinscter which is aggravated by T-bandage. Stallard and Prescott suggested that retention results from diminished awareness of bladder sensation secondary to administration of long acting anesthetic. Cambell found that the amount of intravenous fluid administered perioperatively was the important during anorectal surgery markedly decreases the rate of postoperative retention (Petros, 1990). Minor bleeding is inevitable following all the procedures for the haemorrhoids but is more common in operative procedures. Reactionary haemorrhage: occurs soon after the patient returns to ward or later that evening due to opening of small bleeding points in wound. The Present study showed 4% reactionary haemorrhage in RBL group, 6% in ligation & excision group. Non of the patients required transfusion n and responded to anal canal packing.

Author	Method	Reactionary haemorrhage
Goligher (1962)	Ligation and excision	1.7%
Present study	RBL	4%
	Ligation & excision	6%

None of the patients following injection, RBL or stapled procedure had reactionary haemorrhage.

Secondary haemorrhage: generally follows injection and is apparent at 8th or 9th day. Goligher reported secondary haemorrhage in 1.4% of his patients. In our study only 1 patient of ligation and excision had secondary haemorrhage on 8th day and was treated by sitz bath and appropriate antibiotics. One of the problems commonly faced by the patient is the painful first bowel action. It may or may not be associated with bleeding and can be reduced by avoiding solid foods for 1 day and emollient laxative. Goligher reported complaints of patients following haemorrhoidectomy as passing broken glass pieces or having a red hot poker inserted (John Goligher, 1992). In our series 66% patients after ligation and excision had painful bowel action. First bowel movement were normal in 85% of injection group, 64% of band ligation and 80 % of stapled haemorrhoidectomy. Fecal incontinence 6% of patients following excision and ligation. Minimal discharge is seen wan each patients following all methods but is serious following cryotherapy (AJ Trayor *et al.,*1984).

Author	method	time in hosp.	return to work
Bennett (1962)	lig.& excision	7-10 days	4.5 weeks
JohnAMurie(1980)	RBL	_	3 days
	lig.& excision		32 days
Yik Hong Ho (2000)	lig.& excision	2 days	22.9 days
	stapled	2.1 days	17.1 days
Groves (1971)	RBL	-	0-3 days
Mehigan (2000)	haemorrhoidectomy	1 day	34 days
	stapled	lday	17 days

Ligation and excision is the most painful procedure as it results in the formation of open wound in the sensitive area of anal canal. Stapled procedure is done above the dentate line and thus is very less painful. In present study 33% of patients ligation and excision patients had retention of urine which was

Discharge was seen in 10% - of patients following haemorrhoidectomy (Mehigan *et al.,* 2000). In present study 8% of RBL patients and 6.7% of ligation and excision patients complained of discharge due to sloughing of tissue in RBL and due to exudates from open wound following ligation and

excision. Duration of hospital stay measures the burden in the busy hospital. Increased duration of hospital stay imposes extra load over the administration and subsequently costly affair. In this modern life time off work on the part of patient is of much importance. Patients treated with injection, band ligation and stapled haemorrhoidectomy needed hospital stay of less than 1-2 days only where as ligation patients stayed for 2-7 days. Most patients following injection resumed activity within a week. Patients following RBL and stapled procedure returned to normal activity between 1 to 2 weeks. Ligation patients took 2 to 3 weeks to resume their normal activity. In present study injection group showed return to activity in less than one week and treated as day care, in RBL group time in hospital is one day and return to work was l- 2 weeks in ligation and excision group 2 -7 days time in hospital was spent and 2-3 weeks was taken to return to work in stapled group time in hospital 1-2 days and patients returned to work in I -2 weeks. Ligation and excision patients had a longer period of convalescence though the recurrence rate is least which is mainly due to associated postoperative pain and time required for healing of the wound) On the contrary, in stapled haemorrhoidectomy, with the removal of the haemorrhoid mass simultaneous stapling is done, thus having no open wound, also as this procedure is performed above the dentate line its minimally painful and thus has very short convalescence period.

Conclusion

Surgeons must individualize the treatment and should treat each patient according to their degree by appropriate method as no single method is suitable and adequate for all degree of haemorrhoids. Conservative methods including injection sclerotherapy and RBL should be the first option in treatment of haemorrhoids and later if necessary by operative procedures.

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