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EFFICACY OF INJECTION 3% POLIDOCANOL IN TREATMENT OF 1STAND 2ND DEGREE INTERNAL HEMORRHOIDS

General Surgery

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ABSTRACT

Internal Haemorrhoids has been the most common condition since ages and wide variety of treatment modalities are available to make it an equally enigmatic disease to approach. Polidocanol is the recent sclerosants in the surgeon's armamentarium for its treatment. This prospective study included 80 patients with first or second degree internal haemorrhoids. Internal haemorrhoids had sexual predilection towards males in our study in the ratio of approximately 2:1 with a age range of 25-60 yrs. Fifty five of 80 patients had first degree haemorrhoids and the rest 25 had second degree haemorrhoids. Bleeding Per rectum was the most common complaint followed by constipation, perianal discomfort and perianal itching. Response to first dose of 3% polidocanol was seen in 60% of patients, 27.50% patient responded to second dose and 12.50% patients responded to the third dose of sclerotherapy. Sclerotherapy with inj 3% polidocanol has been an effective agent in the treatment of first and second degree haemorrhoids in this study.

KEYWORDS

Internal hemorrhoids, sclerotherapy, polidocanol, 1st and 2nd degree hemorrhoids

INTRODUCTION

Internal Haemorrhoids is one of the commonest condition in anorectal region and is the commonest cause for bleeding per rectum. There are various methods of treatment for Internal Haemorrhoids depending on the degree of haemorrhoids. Haemorrhoids have conventionally been treated with surgery, either Milligan-Morgan Haemorrhoidectomy or Fergusson Haemorrhoidectomy. Recently Minimally Invasive Procedure for Haemorrhoids (MIPH) has evolved as an alternative to these surgical procedures. First and second degree are effectively managed by non-surgical line of treatment like Injection Sclerotherapy, Rubber band ligation, Diathermy, Infra-red Coagulation.[1,2,3] But none of these have been proved to be superior.

Injection Sclerotherapy has been proved to be a time tested modality of treatment for first and second degree haemorrhoids by causing a fibrous reaction around the haemorrhoidal vessels4. Sclerosants used for this purpose include 3% Polidocanol, 5% Phenol in almond oil, 5% Quinine &Urea or 23.4% Hypertonic Saline[5].

MATERIALS & METHODS

This study was done for a period of one year from December 2021 to January 2023 in the Department of General Surgery, J.J.M Medical College, Davangere, Karnataka, India. Eighty patients were included in the study who are diagnosed as either First degree or second degree haemorrhoids.

Inclusion Criteria

- Patients diagnosed with First degree or second degree haemorrhoids.

Exclusion Criteria

- Pregnant patients, patients with diabetes mellitus
- Patient those with chronic liver diseases
- Patients with Chronic heart conditions
- patients with other associated anorectal conditions like Fissure-in-ano, fistula in ano

Written informed consent was taken from the patient as well as the immediate relative prior to the procedure. Patients were given oral laxatives for three days prior to the procedure and was asked to evacuate the bowel just before procedure. Per rectal and proctoscopic examination was done for confirmation and location of haemorrhoids. Number 22 Lumbar puncture needle was placed at the nozzle of 2ml disposable syringe after filling the syringe with 1 ml of 3% Polidocanol. The solution was injected at the apex of the haemorrhoid submucosally and is observed for gradual blanching of the haemorrhoid. The procedure is repeated for other haemorrhoids if present in the same sitting. The whole procedure was done under spinal anaesthesia. Patient was sent home the next day and was advised for follow up after 3 days, 5 days, 7 days, 14 days, 1 month and 3 months post-procedure. Patient was also advised to return back if inadvertent symptoms like pain at the site, profuse bleeding or fever occurred. Sitz bath was advised for 6 days after the procedure.

RESULTS

The study comprised of eighty patients of Internal haemorrhoids, of which 54 were males and 26 females.

Table 1. Age & Sex distribution of first & second degree haemorrhoids

Age Group	Number of patients			Percentage
	Males	Females	Total	
<30 yrs	30	16	46	57.50
30 – 40 yrs	16	06	22	27.50
40 – 50 yrs	05	04	09	11.25
>50 yrs	03	00	03	3.75
Total	54	26	80	100

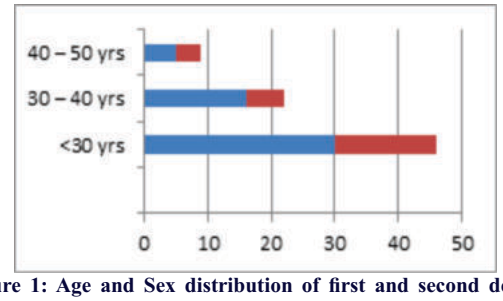

Figure 1: Age and Sex distribution of first and second degree hemorrhoids. BLUE- MALES, RED- FEMALES; X AXIS- Number of patients, Y AXIS- Age in yrs

The commonest symptom was bleeding per rectum which was seen in 58 patients followed by constipation seen in 46 patients and discomfort in perianal region seen in 24 patients. Perianal itching was the least common complaint in this study seen only in 6 patients.

Table 2. Symptoms in patients with haemorrhoids

Complaints	Number of patients(n=80)	Percentage
Bleeding P/R	58	72.50
Constipation	46	57.50
Perianal discomfort	24	30.00
Perianal itching	06	7.50

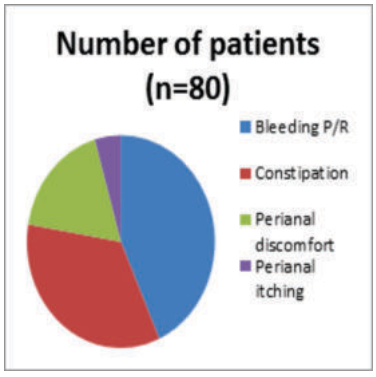

Figure 2: Symptoms in patients with hemorrhiods

Of 80 patients, 55 patients had first degree haemorrhoids and the rest 25 patients had second degree.

Table 3. Degree of Haemorrhoids

Degree of Haemorrhoids	Number of patients	Percentage
First Degree	55	68.75
Second Degree	25	31.25

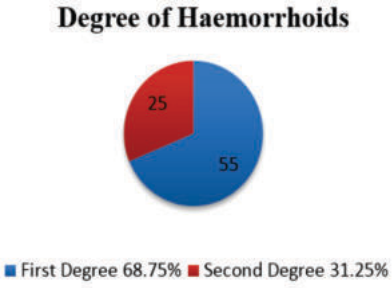

Figure 3: Degree of Hemorrhoids

48 of 80 patients responded to first injection of sclerosant, 22 patients needed two sittings and 10 patients needed three sittings.

Table 4. Number of Injections needed

No. of Injections	No. of patients	Percentage
First	51	59.3 %
Second	25	29.07 %
Third	10	11.63 %

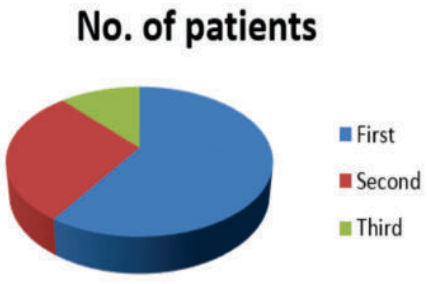

Figure 4: Number of Injections

04 of 80 patients had burning micturition after the procedure who responded to antibiotics and an alkalizer. One patient had thrombosed external piles which was evacuated under local anaesthesia.

DISCUSSION

Haemorrhoids is one of the common condition affecting the population. Dietary habits play an important role in the pathogenesis of this condition. Few series have found the prevalence of haemorrohoids to be around 35-37 % with equal sexual predilection[6,7,8]. This study showed a male predilection in males in the ratio of approximately 2:1. The reason could be due to westernized diet among males prevalent in the local population compared to females. The wide variety of procedures available for haemorrhoids makes it equally controversial for the treatment strategies adopted for the particular patient. Surgeries in the perianal region are often wrought with complications like post-operative pain, bleeding, anal stenosis and fecal incontinence. Though Surgery remains the gold standard for 3rd and 4th degree haemorrhoids, there are still plenty of options available for first and second degree haemorrhoids. Minimally invasive Stapled haemorrhoidopexy is recent development in the surgeon's armamentarium. Though band ligation for first and second degree haemorrhoids is a feasible option, patient often complains of pain at the site of application if it is wrongly applied. Cryosurgery is often met with recurrence. Sclerotherapy is one of the procedure which requires minimal expertise and is associated with minimal complications. Different sclerosants that are available are Polidocanol, ethanolamine oleate, Phenol in almond oil, Sodium tetradecyl sulphate, hypertonic saline etc.

The complications associated with injection sclerotherapy include local pain, bleeding, thrombosed haemorrhoids and prostatitis. Pain at the injection site was experienced by few patients in the present study which subsided within a day with analgesics. Bleeding was seen in few patients which rarely persisted beyond 2 days. None of the patients in the study had prostatitis and one patient had thrombosed external pile mass post sclerotherapy which was evacuated under local anaesthesia. In our study 60% of patients responded to first dose, 27.5% to second dose and rest 12.5% to the third doseof polidocanol sclerotherapy. In a study by Bhuiya et al, first degree haemorrhoids were 60% cases and early second degree haemorrhoids were 40% cases. The highest number of patients was in 3rd and 4th decade (81%). By a Gabrial syringe 5% phenol in olive oil (3-5 ml) was injected in the submucosa of the pedicle of each haemorrhoid. The patients were followed up monthly for six months. Constipation was present in 89% cases. 5% phenol in olive oil was used as sclerosant and satisfactory results were found in 60.41% after first dose, 15.78% after the second dose and 3.12% after the third dose of sclerosants.[9,10]

CONCLUSION

In this study efficacy of Injection 3% polidocanol is an effective sclerosant in the management of First and second degree haemorrhoids.

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