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Injection Sclerotherapy with 3% Polidocanol in 1st and 2nd degree Internal Haemorrhoids – A Prospective Study

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Abstract

Internal Haemorrhoids has been the most common disease since ages and wide variety of treatment modalities available 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 86 patients with first or second degree internal haemorrhoids. Internal haemorrhoids had sexual predilection towards males in our study in the ratio of 2:1 with a age range of 24-68 yrs. Sixty-one of 86 patients had first degree haemorrhoids and the rest 25 had second degree. Bleeding P/R was the most common complaint followed by constipation and perianal discomfort. Response to first dose of 3% polidocanol was seen in 59.3% of patients, 29.07% patient responded to second dose and 11.63% patients responded to the third dose of sclerotherapy. Sclerotherapy is an effective option in the treatment of first and second degree haemorrhoids and 3% polidocanol has been an effective agent in this strategy.

Keywords: Internal haemorroids; Injection sclerotherapy; 3% polidocanol.

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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 haemorrhoids can be 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 over the other.

Injection Sclerotherapy is one of the newer modality of treatment for first and second degree haemorrhoids and it acts by causing a fibrous reaction around the haemorrhoidal vessels.[4] Variety of Sclerosants are used for this purpose and these include, 5% Phenol in almond oil, 3% Polidocanol, 5% Quinine & Urea, 3% Sodium Tetradecyl Sulphate or 23.4% Hypertonic Saline.[5]

Materials & Methods

This multicenter study was done for a period of one year from January 2018 to December 2018 in the Department of General Surgery, Basaveshwara Medical College Hospital & Research Centre, Chitradurga, India. Eighty six patients were included in the study who are diagnosed as either First degree or second degree haemorrhoids. Pregnant patients, patients with diabetes mellitus, those with chronic liver diseases and Chronic heart conditions, patients with other associated anorectal conditions like Fissure-in-ano, fistula in ano were excluded from the study group.

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 as an office procedure. Patient was sent home the same day and was advised for follow up 3 days, 7 days, 14 days, 1 month and 6 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 3 days after the procedure.

Results

The study comprised of eighty six patients of Internal haemorrhoids, of which 58 were males and 28 females (Table 1).

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

Age Group	Number of Patients			Percentage
	Males	Females	Total	
<30 yrs	35	13	48	55.8
30 – 40 yrs	14	7	21	24.4
40 – 50 yrs	6	5	11	12.8
>50 yrs	3	3	6	7.0
Total	58	28	86	100

The commonest symptom was bleeding P/R which was seen in 75 patients followed by constipation seen in 58 patients and discomfort in perianal region seen in 23 patients. Perianal itching was the least common complaint in this study seen only in 2 patients. (Table 2).

Table 2: Symptoms in patients with haemorrhoids.

Complaints	Number of Patients (n=86)	Percentage
Bleeding P/R	75	87.2
Constipation	58	67.4
Perianal discomfort	23	26.7
Perianal itching	02	2.3

Of 86 patients, 61 patients had first degree haemorrhoids and the rest had second degree (Table 3).

Table 3: Degree of Haemorrhoids.

Degree of Haemorrhoids	Number of Patients	Percentage
First Degree	61	70.9 %
Second Degree	25	29.1 %

Fifty-one of 86 patients responded to first injection of sclerosant, 25 patients needed two sittings, and the remaining 10 patients needed three sittings (Table 4).

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 %

Three of 86 patients had burning micturition after the procedure who responded to antibiotics. 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 37 % with equal sexual predilection.[6,7,8] This study showed a male predilection in males in the ratio of 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 plethora 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 an office 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 59.3% of patients responded to first dose, 29.07% to second dose and rest 11.63% to the third dose of polidocanol sclerotherapy. In a study by Bhuiya et al 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]

Conclusion

By this we can conclude that 3% polidocanol is an effective sclerosant in the management of First and second degree haemorrhoids.

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