

A PROSPECTIVE STUDY ON ROLE OF SCLEROTHERAPY IN MANAGEMENT OF FIRST AND SECOND DEGREE HAEMORRHOIDS

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ABSTRACT

AIM AND OBJECTIVE

To find out the safety and efficacy of sclerotherapy in management of symptomatic first and second degree haemorrhoids.

PATIENTS AND METHODS

Total 53 patients of both genders were selected with diagnosis of symptomatic first or second degree haemorrhoids, all of them were subjected for injection sclerotherapy and procedure repeated as per need. Patients were assessed at 1 week, 1 month, 3 months and 6 months thereafter.

RESULTS

Bleeding stopped in 94.3% of the patients after treatment at 6 months follow-up with early and smooth recovery without any significant morbidity.

CONCLUSION

This prospective study concluded sclerotherapy as a safe, easy, cheap and effective method of treatment of first degree and early second degree haemorrhoids devoid of any significant complications.

KEYWORDS

Haemorrhoids, Sclerotherapy, First Degree Haemorrhoids, Second Degree Haemorrhoids, Rubber Band Ligation, Anorectal Symptoms.

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INTRODUCTION

Haemorrhoids are the most prevalent anorectal disorder among adults, and it has been stated that up to half of people may experience problems with haemorrhoids at some point in their lives.^{1,2} Vascular piles are a part of anal canal continence (left lateral, right anterior and right posterior) and if symptomatic called haemorrhoids.³ It is thought that clinical disease develops as a result of dilation and distension of the veins along with weakening of the supporting connective tissue.⁴ In the treatment of first and second degree piles methods like sclerotherapy, infrared coagulation or cryotherapy may be helpful in 90% patients.^{1,5} Sclerotherapy is time-honoured, outpatient procedure that is widely practiced globally to treat haemorrhoids. It started about one and a half century ago and was first advocated in US by Blackwood in 1866. Moreover the procedure is simple, safe, cost effective and painless which can be administered as an outpatient setting.⁶ However, large dose single session sclerotherapy provides only short term benefits in the majority of patients with symptomatic haemorrhoids.⁷ In present study, sclerotherapy has been emerged as safe and

efficacious method of treatment for early internal haemorrhoids.

MATERIAL AND METHODS

The present prospective study was carried out in Department of Surgery, Govt. Shyam Shah Medical College and associated Sanjay Gandhi Memorial Hospital, Rewa (M.P.).

Total 53 patients were selected with primary diagnosis of first and second degree of internal haemorrhoids, informed written consent was taken and explained about risk and benefits of the procedure. Adequate bowel preparation was ensured by syrup laxative for 2 days as per need.

Sclerosants 5% Phenol in Almond oil or Sodium Tetracycl Sulphate was injected in the submucosa of the pedicle of each haemorrhoid under proctoscopic guidance. Maximum three injections were given per session. Patients were re-examined after seven days of injection, followed up on 1 month, 3 months and 6 months subsequently or earlier as per need. Second and third doses of sclerotherapy were administered after 21 days of interval as per need. All the significant data of history, examination, management and complications were collected and recorded in a preformed data sheet and analysed by Statistical Package of Social Science (SPSS).

RESULTS

A total of 53 patients were included in the present study, average age in present study was 41 years, half (49%, n=26) of the patients were in the age group of 21-40 years, 87% (n=46) of the patients were male and most (73.5%, n=39) of the patients were vegetarian.

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Distribution of the patients according to clinical presentation revealed bleeding per rectum in all (100%, n=53) patients as presenting complaints of early internal haemorrhoids associated with constipation in 60.3% (n=32) (Table I).

Sl. No.	Clinical Presentation	No. of Patients	Percentage
1	Bleeding Per Rectum	53	100.0
2	Constipation	32	60.4
3	Mucous Discharge	09	17.0
4	Itching	07	13.2
5	Pain during Defecation	03	05.7
6	Urgency	02	03.8

Table I: Distribution of the Patients According to Clinical Presentation (n=53)

Distribution of the patients according to type of haemorrhoids revealed that most (62.3%, n=33) of the patients had first-degree haemorrhoids (Table II).

Sl. No.	Type of Haemorrhoids	No. of Patients	Percentage
1	First degree	31	58.5
2	Second degree	22	41.5

Table II: Distribution of the Patients According to Types of Haemorrhoids (n=53)

Distribution of the patients according to response of sclerotherapy revealed that most (94.3%, n=50) of the patients got benefit from sclerotherapy, whereas all (100%, n=31) patients with first degree haemorrhoids were relieved (Table III).

Type of Haemorrhoids	No Change (%)	Reduced Bleeding (%)	Cured (%)	Total Relieved (%)
First Degree (n=31)	00 (00)	04 (12.9)	27 (87.0)	31 (100)
Second Degree (n=22)	03 (13.6)	07 (31.8)	12 (54.5)	19 (86.3)
Total (n=53)	03 (05.7)	11 (20.8)	39 (73.6)	50 (94.3)

Table III: Distribution of the Patients According to Response of Sclerotherapy (n=53)

Distribution of the patients according to complications following sclerotherapy revealed mild complications in a few patients (Table IV).

Sl. No.	Complications	No. of Patients	%
1	Pain (More than 7 at VAS Scale)	03	05.7
2	Haemorrhage	04	07.5
3	Retention of Urine	01	01.9
4	Prostatitis	01	01.9
5	Itching	01	01.9
6	Thrombosis	00	00.0
7	Vasovagal Shock	00	00.0
8	Tenesmus	00	00.0
9	Abscess Formation	00	00.0
10	Infertility	00	00.0
11	Allergic Reactions	00	00.0

Table IV: Complications following Sclerotherapy (n=53)

DISCUSSION

Haemorrhoids are one of the most commonly encountered diseases in surgical OPD or Emergency. Abnormal dilatation and distortion of the vascular channels, together with destructive changes in the supporting connective tissue within the anal cushion, is a paramount finding and now considered to be the most important aetiological factor for development of haemorrhoids.⁸ Although pathophysiology of haemorrhoids is not clearly understood, various other conditions like straining, prolonged lavatory sitting, constipation, diarrhoea and conditions associated with elevated intra-abdominal pressure have been implicated.⁹ Aging causes haemorrhoid progression.^{3,10,11} A third of patients with bleeding haemorrhoids require treatment which needs to be tailored according to grades of haemorrhoids, patient preference and expertise of procedure.¹² Treatment is often divided between non-operative management, office procedures and surgical management utilising an operating room.¹³ Broadly, grade 1 and 2 haemorrhoids are treated with non-operative treatment in the form of dietary modification, injection sclerotherapy, rubber band ligation, endoscopic band ligation, electro-coagulation or infrared coagulation.^{12,8} Primary goal of all forms of therapy is to achieve fibrosis and obliteration of bleeding vessel. Injection sclerotherapy is one of the most commonly practiced, easily available forms of non-surgical treatment in adults.¹⁴ We have studied the role of sclerotherapy in the management of symptomatic first and second degree haemorrhoids. Sclerotherapy is gold standard in 1st degree pile treatment.¹⁵ Similar to rubber band ligation, injection sclerotherapy may also be undertaken in the outpatient setting.¹⁶ Injection sclerotherapy is preferable to current coagulation for the outpatient treatment of haemorrhoids because it is quicker, less tedious and a more comfortable procedure with equally effective early results.¹⁶ Sclerotherapy for haemorrhoids is a less-invasive, less-painful procedure that causes the problematic haemorrhoid to shrivel and dissipate within a short period of time.¹⁷ A long spinal needle is used via anoscope. Induration is the indicator of proper depth.¹⁸ The most common sclerosing agent used is 5% Phenol in Almond oil, which is mainly effective for haemorrhage.¹⁹ Other agents include Phenol in Arachis oil, Polidocanol, Quinine and Urethane, Aetoxisclerol, Xiao Zhi Ling (XZL) (Consisting of Chinese nutgalls and Aluminium Potassium Sulphate), OC 108 and 50% Dextrose. Sclerosing agent blocks vessels and causes inflammation and fibrosis that fixes haemorrhoid to the surrounding tissue, preventing prolapse.²⁰ Sclerotherapy has the least complications among other haemorrhoid treatments, which prevents the progression of the disease.^{3,21} Complications with sclerosants are rare but include local infections, prostatitis, portal pyaemia, and erectile dysfunction.²² Urological complications are due to anteriorly misplaced injections in the substance of prostate/urethra or periprostatic venous plexus.²³ So it is not recommended to use sclerotherapy in anterior haemorrhoids.²³ Other complications include allergic reactions, psychogenic reactions (Collapse, vasovagal shock), infection, incontinence, prostatic abscess and very rarely retroperitoneal sepsis, necrotising fasciitis of rectum and life-threatening sepsis.^{24,25} Serious complications from sclerotherapy are rare, they occur only in 0.02% or 1 in 5000 injections and arise mostly from improper technique.²⁶ Our

study shows safety and effectiveness of sclerotherapy in management of first and second degree of haemorrhoids very well.

SUMMARY AND CONCLUSION

Results of this present study concludes that the sclerotherapy is an easy, safe, well tolerated, cheap and effective modality for treatment of first and second degree of internal haemorrhoids, which can be performed on OPD basis.

LIMITATIONS

As the study was applied only on a small group of patients, so results may not reflect the scenario worldwide.

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