Original Research Paper

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General Surgery

ASSESSING THE ROLE OF SCLEROTHERAPY IN THE MANAGEMENT OF HEMORRHOIDS: A CLINICAL STUDY

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ABSTRACT **Introduction:** Haemorrhoids are common anorectal conditions requiring early treatment. Hemorrhoids are common anal conditions causing pain and discomfort. Common treatments include surgery, injection sclerotherapy, and rubber band ligation. Sclerotherapy is frequently used because it reduces postoperative pain and has minimal complications. **Objectives:** To study efficacy, Assess the complications & to evaluate long term outcomes of Sclerotherapy in management of hemorrhoids. **Methodology:** A prospective study was conducted at Al ameen medical college & hospital, Bijapur. Detailed clinical examinations were performed, and sclerotherapy was administered post-diagnosis. Patients were followed up at 2 weeks, and 1, 6, and 9 months to monitor symptom improvement and complications. **Results:** The study included 100 patients. The mean, median, and mode of the ages were 46.5, 45, and 40, respectively. Most patients had histories of constipation and stool straining. The majority had haemoglobin levels above 10 gm/dl, with most cases being grade 1 haemorrhoids. Follow-up post-sclerotherapy showed significant improvements in pain, rectal bleeding, mucosal discharge, and pruritus ani. A minimal percentage of patients experienced discomfort following injection. A negligible percentage had reactionary haemorrhage and urinary retention. **Conclusion:** Sclerotherapy is one of the safest, easiest, and shortest-duration outpatient procedures for haemorrhoids, offering early recovery and minimal complications. Sclerotherapy is highly effective for haemorrhoid treatment, making it a preferred choice among various treatment options available. The study supports its continued use in clinical practice for managing haemorrhoid symptoms efficiently and safely, ensuring patient comfort and rapid recovery

KEYWORDS : Hemorrhoids, Pruritus Ani, Mucosal Discharge, Pain During Defecation, Rectal Bleeding

INTRODUCTION

Hemorrhoids are common anal conditions causing pain and discomfort. Historical treatments like poultices and extreme measures led to modern methods such as injection sclerotherapy, effective for first and second degree cases.

This outpatient procedure reduces post-operative pain, promoting quick recovery.

Hemorrhoids affect men twice as often as women and increase with age.

Treatment options include sclerotherapy, rubber band ligation, and surgery, with non-surgical approaches gaining popularity.

This study evaluates injection sclerotherapy outcomes, emphasizing its safety and efficacy in managing hemorrhoids.

Aims & Objectives

To study efficacy, Assess the complications & to evaluate long term outcomes of Sclerotherapy in management of hemorrhoids.

Methods of Collection of Data:

Study Design: Prospective study.

Source Of Data

Patients attending the out-patient department on a regular basis and inpatients of haemorrhoids at AL- AMEEN MEDICAL COLLEGE & hospital, BIJAPUR

Study Period

The study period is from 01/11/23 to 31/7/24 over 9 months.

Sample Size

A sample of 100 patients will be selected using purposive sampling technique.

Inclusion Criteria

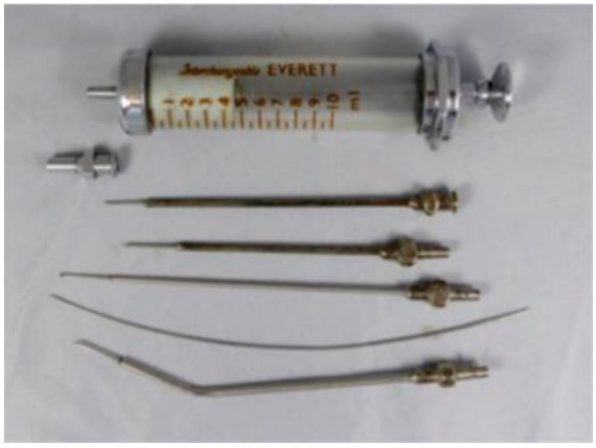
- Patients diagnosed with 1 st, 2nd Early 3rd degree hemorrhoids

Exclusion Criteria

- Patients not given consent
- Patients diagnosed with Late 3rd degree haemorrhoids and Thrombosed, Prolapsed haemorrhoid.

Methodology

- Details of cases will be recorded including history and physical examination
- Laboratory investigations
- Once a diagnosis of haemorrhoids is made, the patient is asked to present themselves to the outpatient department where the procedure is carried out after obtaining Consent of the patients
- Bowel Preparation done
- Position: SIMS (lateral decubitus)
- Instruments required:
  - ¡ Proctoscope,
  - ¡ Light source,
  - ¡ Sclerosant Ampules (i.e Zinc Chloride, Quinine & polidocanol 3% etc..),
  - ¡ Disposable Syringe (10ml) & Long 25G needle
- Cleanse with Antiseptic, apply xylocaine jelly
- Proctoscopy done
- Hemorhoid identified
- Trial ½- 2ml fluid injected, reaction noted.
- Striation sign visualized
- Sclerosing agent -> Tissue irration -> inflammation -> Atrophy of piles
- FOLLOW UP:- At 2 wks, 1,6, and 9 months
- Checked for symptoms improvement & any complications



RESULTS

In this observational study "Assessing the Role of Sclerotherapy in the Management of Hemorrhoids: A Clinical Study" 100 patients were analysed and the results were as mentioned below.

The Distribution of Age Groups are,
- **21-30 years:** 32%
- **31-40 years:** 27%
- **41-50 years:** 19%
- **51-60 years:** 15%
- **61-70 years:** 7%

The distribution of sex (gender) within a population is,
- **Male:** 80
- **Female:** 20

The distribution of dietary preferences within a population:
- **Veg (Vegetarian):** 22%
- **Mixed (Non-vegetarian or Omnivorous):** 78%

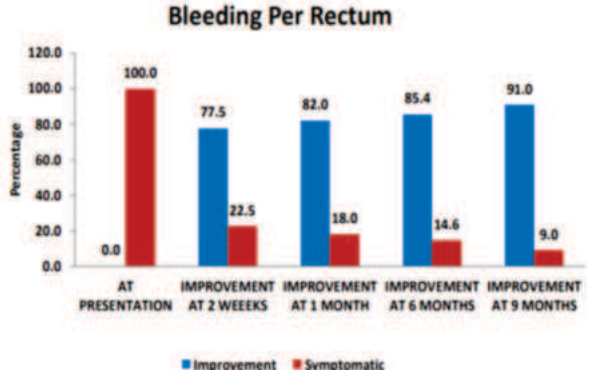
The distribution of different grades of hemorrhoids in a population.
- **Grade 1:** 68%
- **Grade 2:** 30%
- **Grade 3:** 2%

The distribution of bowel habits in a population.
- **Constipation & Straining:** 65%
- **Regular:** 35%

The percentage of individuals with different associated diseases are,
- **DM (Diabetes Mellitus):** 5%
- **HTN (Hypertension):** 3%
- **HBsAg +ve (Hepatitis B Surface Antigen positive):** 2%
- **HIV (Human Immunodeficiency Virus):** 1%

The distribution of presenting symptoms among a population.
- **Bleeding:** 89%
- **Pain During Defecation:** 18%
- **Mucosal Discharge:** 15%
- **Pruritus Ani (Itching Around The Anus):** 15%

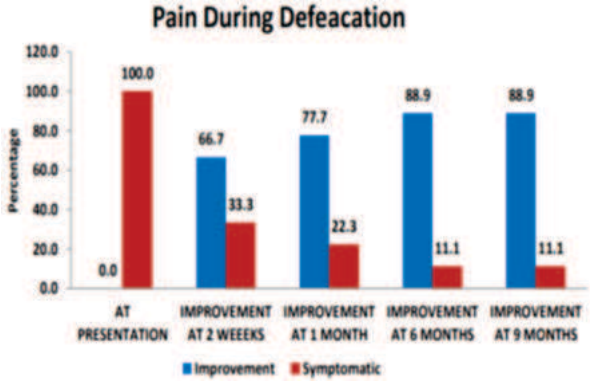
The progression of bleeding per rectum symptoms over time, comparing the percentage of patients showing improvement and those remaining symptomatic different intervals. Here's the breakdown:
- **At Presentation:**
  - 100% of patients were symptomatic , and 0% had shown improvement.
- **At 2 Weeks:**
  - 77.5% showed improvement
  - 22.5% remained symptomatic
- **At 1 Month:**
  - 82.0% showed improvement.
  - 18.0% remained symptomatic.
- **At 6 Months:**
  - 85.4% showed improvement.
  - 14.6% remained symptomatic.
- **At 9 Months:**
  - 91.0% showed improvement.
  - 9.0% remained symptomatic.



The progression of patients with Pruritus Ani over time in terms of symptom persistence and improvement,
- At presentation, 100% of patients were symptomatic
- At 2 weeks, 80% showed improvement, while 20% remained symptomatic
- At 1 month, 86.7% improved, and 13.3% still had symptoms.
- By 6 months and 9 months, 100% of patients showed improvement, with no remaining symptoms.

The progression of patients with Mucosal Discharge, tracking symptom improvement and persistence over time.
- At presentation, 100% of patients were symptomatic (red bar).
- After 2 weeks, 66.7% of patients showed improvement, while 33.3% remained symptomatic.
- At 1 month, 100% of patients improved, and none remained symptomatic.
- At 6 months and 9 months, all patients continued to show full improvement, with 100% improvement and no symptomatic cases.

The patients experiencing pain during defecation, focusing on symptom persistence and improvement over time.
- At presentation, 100% of patients experienced pain during defecation (red bar).
- At 2 weeks, 66.7% showed improvement, while 33.3% still experienced symptoms.
- At 1 month, 77.7% had improved, but 22.3% remained symptomatic.
- At 6 months, 88.9% showed improvement, and 11.1% continued to have pain.
- By 9 months, the improvement rate stayed at 88.9%, with 11.1% of patients still symptomatic.



Interpretation Of Results:

1. Patient Demographics
- **Age Distribution:**
  - Majority of patients are between 31-40 years (32%) and 41-50 years (27%), indicating that hemorrhoids are more common among middle-aged adults.
- **Sex Distribution:**
  - 80% of the patients are male, and 20% are female, showing a male predominance.
- **Diet:**
  - 78% of patients follow a mixed diet, while 22% are vegetarians.

2. Grades of Hemorrhoids
- 68% of patients were diagnosed with Grade 1 hemorrhoids, which are the least severe.
- 30% had Grade 2 hemorrhoids.
- 2% had Grade 3 hemorrhoids, the most severe.

3. Bowel Habits
- 65% of patients reported suffering from constipation and straining, a known risk factor for hemorrhoids.
- 35% had regular bowel habits.

4. Associated Diseases

Patients had Co-existing Conditions:
- 5% had Diabetes Mellitus (DM).
- 3% suffered from Hypertension (HTN).
- 2% were HBsAg positive (indicating Hepatitis B infection).
- 1% had HIV.

5. Presenting Symptoms

At the Time of Presentation, the Following Symptoms were Observed:
- 89% of patients reported bleeding.
- 18% experienced pain during defecation.
- 15% had mucosal discharge.
- 15% suffered from Pruritus Ani (itching around the anus).

6. Symptom Progression and Improvement Over Time

A. Bleeding Per Rectum:

- At presentation: 100% of patients were symptomatic.
- At 2 weeks: 77.5% showed improvement.
- At 1 month: 82% improved.
- At 6 months: 85.4% improved.
- At 9 months: 91% showed improvement, with only 9% still symptomatic.
- Interpretation: Bleeding symptoms improved steadily over time, with the majority of patients experiencing significant improvement by 2 weeks, and 91% achieving symptom resolution by 9 months.

B. Pruritus Ani (Itching around the Anus):

- At presentation: 100% of patients were symptomatic.
- At 2 weeks: 80% showed improvement.
- At 1 month: 86.7% showed improvement.
- At 6 months: 100% had improved, with no remaining symptoms.
- At 9 months: The 100% improvement persisted.
- Interpretation: Pruritus Ani resolved quickly, with most patients improving by 2 weeks and full resolution by 6 months. There were no recurring symptoms by 9 months.

C. Mucosal Discharge:

- At presentation: 100% of patients experienced mucosal discharge.
- At 2 weeks: 66.7% showed improvement.
- At 1 month: All patients (100%) had fully recovered.
- At 6 months & 9 months: 100% of patients remained symptom-free.
- Interpretation: Mucosal discharge resolved rapidly, with most patients showing improvement at 2 weeks and complete resolution by 1 month. No recurrence was seen through the 9-month follow-up.

D. Pain During Defecation:

- At presentation: 100% of patients experienced pain during defecation.
- At 2 weeks: 66.7% showed improvement.
- At 1 month: 77.7% had improved.
- At 6 months: 88.9% of patients showed improvement.
- At 9 months: 88.9% remained improved, with 11.1% still symptomatic.
- Interpretation: Pain during defecation improved more slowly compared to other symptoms. Although most patients experienced significant relief, a small group (11.1%) continued to have pain even after 9 months, indicating a more persistent condition.

SUMMARY

- Pruritus Ani and Mucosal Discharge showed complete resolution of symptoms by 6 months, with no recurrence by 9 months. These symptoms have a highly favorable prognosis.
- Pain During Defecation showed slower recovery, with 88.9% of patients improving by 9 months, but 11.1% still experiencing pain. This symptom may require more prolonged or intensive treatment for full resolution.

CONCLUSION

The treatment of hemorrhoids, particularly for symptoms like Pruritus Ani and Mucosal Discharge, is highly effective, with all patients experiencing full recovery within a few months.Pain During Defecation shows a slower and less complete recovery, with 11.1% of patients continuing to experience pain even after 9 months. This may indicate the need for extended care or more aggressive treatment for some patients.

Sclerotherapy is one of the safest, easiest, and shortest-duration outpatient procedures for haemorrhoids, offering early recovery and minimal complications.

It significantly improves symptoms such as rectal bleeding, pain, mucosal discharge, and pruritus ani. With its early recovery and minimal adverse effects, Sclerotherapy is highly effective for haemorrhoid treatment, making it a preferred choice among various treatment options available. The study supports its continued use in clinical practice for managing haemorrhoid symptoms efficiently and safely, ensuring patient comfort and rapid recovery.

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