INTRODUCTION

Haemorrhoids are dilated tortuous veins in relation to the anal canal. They affect both the sexes and 50% of the population has haemorrhoids by the age of 50\(^1\). The symptoms of haemorrhoids include bright red bleeding per rectum, prolapsed or protrusion and pruritis ani. Pain is usually seen in thrombosed or strangulated piles\(^2\). Haemorrhoids can be divided into four grades according to the degree of prolapse\(^3\).

First degree remains internal but bleeds while second degree piles prolapse on defecation but reduce spontaneously. Third degree piles reduce manually while fourth degree piles remain prolapsed and cannot be manually reduced\(^4\).

The traditional treatment for 1\(^{st}\), 2\(^{nd}\) and 3\(^{rd}\) degree haemorrhoids is conservative (fibre rich diet, better defecation discipline). If symptoms prevail then there are a wide range of treatment modalities is available\(^5\). Injection sclerotherapy and electro coagulation are widely used for early haemorrhoids\(^6\). 5% Phenol in Almond oil is used as sclerosant which obliterates the haemorrhoids vascularity inducing inflammation and fibrosis which prevents prolapse of the surrounding tissue. Sclerotherapy is 69% effective in 1\(^{st}\) degree haemorrhoids\(^7,8\).

Haemorrhoids are a very common disease in our society. Various treatment options are available for 1\(^{st}\) degree haemorrhoids. Sclerotherapy is a non-surgical modality; it is a less tedious and more comfortable procedure with equally effective early results. Moreover the complications are negligible.

MATERIALS AND METHODS

The cross sectional descriptive study was conducted in the department of General Surgery, surgical "C" unit, Khyber Teaching Hospital, Peshawar from 01/09/2010 till 01/03/2011. A total of 83 patients with first degree hemorrhoids included in the study out of which 62 (74.7%) were male and 21 (25.03%) were female with M: F=2.99:1. Average age 41.1 years +0.1 SD with range 20-60 years. Efficacy was observed in 68 (81.83%) patients where 15 (18.07%) patients showed no results.

CONCLUSION: Injection sclerotherapy is simple, convenient and effective outdoor procedure for first degree haemorrhoids.
on proctoscopy and presenting with history of fresh bleeding per rectum. All patients with previous history of inflammatory bowel disease, chronic liver disease, hemorrhoids surgery, bleeding disorders were excluded from the study as these conditions were causing bias in the study and acting as confounder.

All patients meeting the inclusion criteria and presenting with the first degree hemorrhoids (as per operational definitions) were included in the study. The purpose and benefits of the study were explained to all patients and they were explained that the study is done purely for research and data publication and if agreed upon a written informed consent was taken.

All patients were subjected to detailed history and clinical examination followed by routine pre operative investigations. Injection Sclerotherapy with 1-2ml of 5% Phenol in Almond oil was injected in the sub mucosal plane of each pile case above the dentate line. Patients were sent home on pain killers and reviewed at 3 weeks interval to determine the efficacy of the drug in terms of episode of bleeding per rectum. All the above mentioned information including name, age, gender and address were recorded on pre designed proforma.

The data was collected on a pre designed proforma and was analyzed in SPSS version 14.0. Mean and standard deviation were calculated for numeric variables like age. Frequencies and Percentages were computed for categorical variables like gender and efficacy. Efficacy was stratified among age and gender to see the effect modification. All the results were presented in the form of tables and graphs.

**RESULTS**

A total of 83 patients of 1st degree haemorrhoids were included in the study. There were 62 (74.7%) male and 21 (25.30%) were female. (Fig-no. 1) Male to female ratio was 2.99:1. Average age of patient was 41.1 years+ 10SD with range 20-60 years. Patient age group was divided into four categories. The most common age group was 31-50 years. 13 (15.7%) patients were less than 30 years old while 24 (28.9%) patients were in the age of 31-40 years. 33 (39.8%) patients were of the age range 41-50 years while 13 (15.7%) presented at the age of more than 50 years.

The frequency of Injection Sclerotherapy in terms of stopping Bleeding per Rectum was observed in 68 (81.91%) patients while in 15 (18.09%) it had no effect. (Fig-no. 2) The efficacy was 84.6% in patients younger than 30 years and 87.5% in 31-40 years age group and 12.5% showed no efficacy. 81.8% efficacy was observed in 41-50 years age group while 18.2% showed no
efficacy. (Table-I)

<table>
<thead>
<tr>
<th>AGE (in years)</th>
<th>Efficacy</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>20 - 30</td>
<td>11</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>84.6%</td>
<td>15.4%</td>
</tr>
<tr>
<td>31 - 40</td>
<td>21</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>87.5%</td>
<td>12.5%</td>
</tr>
<tr>
<td>41 - 50</td>
<td>27</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>81.8%</td>
<td>18.2%</td>
</tr>
<tr>
<td>51 and above</td>
<td>9</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>69.2%</td>
<td>30.8%</td>
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<tr>
<td>Total</td>
<td>68</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>81.9%</td>
<td>18.1%</td>
</tr>
</tbody>
</table>

Table-I. Age wise distribution of efficacy of sclerotherapy

69.2% efficacy was seen in above 50 years age group while 30.8% had no efficacy. Gender wise efficacy was 85.5% in female and 80.6% in males while no efficacy was seen in 14.3% female and 19.4% in males. (Table-II)

<table>
<thead>
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<th>Gender</th>
<th>Efficacy</th>
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</thead>
<tbody>
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<td>No</td>
</tr>
<tr>
<td>Male</td>
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<td>12</td>
</tr>
<tr>
<td></td>
<td>80.6%</td>
<td>19.4%</td>
</tr>
<tr>
<td>Female</td>
<td>18</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>85.7%</td>
<td>14.3%</td>
</tr>
<tr>
<td>Total</td>
<td>68</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>81.9%</td>
<td>18.1%</td>
</tr>
</tbody>
</table>

Table-II. Genderwise distribution of efficacy of sclerotherapy

DISCUSSION

Sclerotherapy is the oldest therapy for haemorrhoids and is used since 1869. 5% phenol in Almond oil was used as a sclerosent since that time, the prevalence of haemorrhoids is up to 4% and only 1/3 of the patients seek medical advice for the condition.

Most of the patients in our study I-e 57 (67.7%) were between 31-50 years old. In our study male were more in number than females. Mahmoodand Whagma also supported our study.

Mean age was 41.4% while in one study mean age was 44.1% with male predominance.

The chief complaint was something coming out of the anal canal in 53(51%) patients followed by Bleeding P/R in 73 (57.6%) patients. Mean age was 41.1 years while in one study it was 44.1 years.

100 patients with 1st and 2nd degree haemorrhoids were treated conservatively with high fibre diet and stool softeners. Out of these 100 patients 75% responded and had no recurrence.

In one study, Bleeding P/R was cured in 75 out of 100 patients while twelve showed no response. In comparison to 67.3% fully cured of the per rectal bleeding who were subjected to sclerotherapy. Verma et al. From Hong Kong have found an early cure rate of 84% with injection sclerotherapy.

Among the national studies, Aftab has found a sure rate of 63% for 1st degree and 60% for 2nd degree haemorrhoids while Saleem has observed cure rate of 95% for 1st degree and 60% for 2nd degree haemorrhoids. Rabau states a cure rate of 85-90% at one year follow up but Santos and his co-workers from UK have found this cure to be short lived at 4 years follow up.

Out of 100 patients (33.33%) underwent injection sclerotherapy. 69% patients responded without any complications. This sort of treatment is also mentioned by other authors as highly beneficial for 1st and 2nd degree haemorrhoids.

Out of 97 patients, 13% had pain; infection was seen in 7 patients while 11% patients gave no satisfactory response and ultimately needed rubber band ligation or surgery. The efficacy of injection sclerotherapy is also suggested by other authors.
Another to another study, different types of sclerosing agents like cow milk, D/water 15%, 25%, 30% saline solutions and 5% Phenol in Almond oil were used.  

We have use 5% phenol in almond oil as sclerosent agent that is easily available and economical with well documented sclerosent effect.

According to the questionnaire, 100 patients who had undergone sclerotherapy for 1st degree haemorrhoids, 62% had no bleeding at 24 hours. At 28 days interval, the figure had fallen to 41% although overall improvement was 88%.

CONCLUSION
Conservatively treatment is recommended for 1st and 2nd degree haemorrhoids which sufficiently relieve symptoms. Injection sclerotherapy treatment is the procedure of choice for 1st and 2nd degree haemorrhoids. The technique is simple to learn, easy to perform and an effective outdoor procedure for preventing bleeding per rectum in first degree haemorrhoids.

REFERENCES


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Coming together is a beginning, staying together is progress, and working together is success.

Henry Ford