INTRODUCTION

Anal fissure is a common problem that causes substantial morbidity in people who are otherwise healthy. This study was conducted to evaluate the effectiveness of lateral internal anal sphincterotomy as the surgical management of anal fissure.

MATERIAL AND METHODS: This was a descriptive study conducted in the Department of Surgery, Mufti Mahmood Memorial Teaching Hospital D.I.Khan over a period of one year, from June 2007 to May 2008. A total of 60 patients were included in this study who did not respond to conservative treatment.

RESULTS: Fifty patients were males and 10 females. Age range was 20-55 years. Fifty-six (93%) patients had posterior and 4 (6%) anterior anal fissure. Fifty-eight (96.66%) patients were symptom free after lateral internal anal sphincterotomy and only 2 (3.34%) were still complaining of mild pain.

CONCLUSION: Lateral internal anal sphincterotomy has excellent results in the patients with chronic anal fissure who do not respond to conservative treatment.

KEY WORDS: Anal fissure, Sphincterotomy, Lateral internal anal sphincterotomy.
Amir Amanullah

All the patients were given laxatives, analgesics and pyodine sitz baths postoperatively. Follow-up visits were arranged at 1, 3, 6 and 12 months.

RESULTS

Among 60 studied patients, 50 (83%) were males and 10 (17%) females.

Age ranged from 20-55 years with the mean age of 38.56±8.87 years. The maximum incidence of anal fissure was noted between 31-50 years. (Table-1)

<table>
<thead>
<tr>
<th>Age (years)</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>20</td>
<td>1</td>
<td>1.7</td>
</tr>
<tr>
<td>21-30</td>
<td>9</td>
<td>15</td>
</tr>
<tr>
<td>31-40</td>
<td>29</td>
<td>48.3</td>
</tr>
<tr>
<td>41-50</td>
<td>18</td>
<td>30</td>
</tr>
<tr>
<td>&gt;50</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>Total</td>
<td>60</td>
<td>100</td>
</tr>
</tbody>
</table>

Post-operatively, early complications included minor bleeding in 23 (38.3%), mild soiling in 8 (13.3%) and incontinence of flatus in 2 (3.3%) patients. (Table-3)

<table>
<thead>
<tr>
<th>Complication</th>
<th>Number of patients</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minor bleeding</td>
<td>23</td>
<td>38.3</td>
</tr>
<tr>
<td>Mild soiling</td>
<td>08</td>
<td>13.3</td>
</tr>
<tr>
<td>Flatus incontinence</td>
<td>02</td>
<td>3.3</td>
</tr>
</tbody>
</table>

At the end of the study i.e. 12 months, 58 (96.66%) patients remained free of symptoms and were fully satisfied with the results of surgery, while only 2 (3.34%) patients had mild pain.

DISCUSSION

There were 60 patients in our study. The age range of these patients was 20-55 years with the mean age of 38.56 ± 8.87 years. Fifty eight percent of patients were in 31-40 years age group followed by patients in the age range of 41-50 years. Shafiqullah et al13 reported 32% in 20-30 years and 46% in 31-40 years age groups. Mean age reported in different studies range from 30-45 years14 but Cho DY noticed that confounding effects of age, gender, body weight, and height were not significant.15

Among the sixty patients in our study, 58 (96.66%) patients had posterior midline fissure while 2 (3.34%) were found to have anterior midline fissure. The possible reason for increased posterior fissure was due to the reason that in our study most of the patients were males and in males the posterior fissure is more common as compared to females.

All patients in the present study presented with pain during and after defecation. Forty-five patients (75%) had constipation and 15 (25%) had pain associated with bleeding per rectum. Shafiqullah et al13 reported 88% with pain and 66% with bleeding with or without pain.

Post-operative impairment of continence is not uncommon. Lewis et al8 found some degree of incontinence in 17% of their patients; in two thirds of these patients, this complication was only temporary. Khubchandani and Reed17 reported postoperative soiling in 22% and grade-I incontinence in 35% of patients after sphincterotomy.
Hsu and Mac Keigan\textsuperscript{18} reported no post-operative soiling or incontinence following lateral sphincterotomy. In the present study, 13\% had mild soiling which resolved within 2 to 3 months.

The alternative surgical procedure of sphincter dilatation is associated with uncontrolled tearing of internal sphincter muscle and portion of external anal sphincter may also be damaged resulting in higher incidence of post operative sphincteric problems.\textsuperscript{19}

The most consistent findings found in 100\% of these cases were anal spasm with visible lower margin of the fissure on careful examination. In all the patients lateral internal sphincterotomy was performed and were followed up to one year. 97\% of patients were cured of their symptoms in while only in 3\% the fissure failed to heal, although the symptoms had decreased in severity and the patients were not willing for further operations. Hananel et al\textsuperscript{20} reported 98.6\% success rate with a recurrence rate of 1.4\% while Littlejohn et al\textsuperscript{21} reported 99.7\% healing rate with incontinence rate of 1.4\% and recurrence rate of 1.4\%. Nyam et al\textsuperscript{22} showed a success rate of 96\% but with higher recurrence rate of 8\% and incontinence in 15\%.

Tariq Siddique et al\textsuperscript{23} showed 98\% healing rate and complication rate was only 8\% which resolved with conservative treatment. While Syed SA and colleagues, in their study on 112 cases noted minor complications in 17.8\% of patients, including urinary retention, temporary loss of flatus control in 2.6\% each and soiling of clothes in 1.7\% of patients.\textsuperscript{12}

All these results are close to our results in term of success rate and rate of complications.

**CONCLUSION**

Lateral internal anal sphincterotomy has excellent results in patients with chronic anal fissure who do not respond to conservative treatment.

**REFERENCES**

4. Jenkins JT, Urie A, Molloy RG. Anterior anal fissures are associated with occult sphincter in-


Address for correspondence:
Dr. Amir Amanullah
Consultant Surgeon
Mufti Mehmood Memorial Teaching Hospital
Dera Ismail Khan, Pakistan
E-Mail: amiramanullahkhan@yahoo.com