Lateral Internal Sphincterotomy for Chronic Anal Fissure Under Local Anaesthesia as a Day Case Surgery

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This prospective study was carried out in East Surgical unit, Mayo Hospital, Lahore for the period of two years from July 2001 to July 2002 on outpatient basis. Total of 50 patients aged between 20-50 years fulfilled the criteria of day case surgery i.e., health and social criteria (ASAI&II), only those were included in the study. The objectives were to evaluate the role of lateral sphicnterotomy under local anaesthesia as a day case surgery, considerable cost to patient and hospital, less morbidity and high patient acceptance. Thirty three patients (66%) were male and 17(34%) were female. Male to female ratio was about 2:1. Thirty nine patients (78%) presented with posterior anal fissure and 11 patients (12%) with anterior anal fissure. All patients operated under local anaesthesia as day case . Immediate relief from pain and painless first bowel movements was accomplished in 49(98%) of patients. No morbidity was observed. Postoperative complications were observed in 4patients (8%) that resolved with conservative management. The patient acceptance was high (94%).
Key words: Anal fissure, internal sphincterotomy, local anaesthesia, day case surgery.

Anal fissure is one of the most common cause of severe anal pain affecting all age groups. The classical symptoms are of anal pain during or after defecation, accompanied by passage of bright red blood. The majority of anal fissure are acute, relatively short lived, heals conservatively, but the anal fissure which is failing to heal within 6 weeks despite straight forward dietary measures are needed. Surgical intervention because they cause considerable morbidity[1]. A day case surgery is now established in the large majority of hospitals. It will continue to expand improvements in surgical and anaesthetic techniques will ensure that it is possible. There are different treatment options i.e., non surgical methods (WASH regimen, topical nitroglycerine GTN), surgical methods (anal dilatation, post anal sphincterotomy, lateral sphincterotomy closed and open technique, anal advancement flap. But lateral internal sphincterotomy under local anaesthesia as a day case surgery is still the gold standard treatment.

Materials and methods

This prospective study was conducted in east Surgical Unit, Mayo Hospital, Lahore on outpatient basis from July 2000 to July 2002. the mean follow up period was one year. Total of 50 patients aged between 20-50 years who fulfilled the criteria of day case surgery were included in the study. Hypertensive, diabetic patients, pregnant women and patients having any associated pathology like haemorrhoids were excluded from the study. A history, clinical examination and investigation were done on outpatient basis and admitted for operation on a planned non-resident basis, but who nonetheless required facilities for recovery. On admission premedication was started at early morning at 8.00am. I/v line maintained with 5% D/W, 3 voltral 75mg was given i/m, 1.2 hour before surgery. Inj. Dormicum i/m 1.2 hour before surgery. The patient was operated under local anaesthesia, in left lateral position anal skin prepared with pyodine and draped. Inj. Xylocain 2% with adrenaline 5ml infiltrated lateral to anal verge 1cm from mucocutaneous junction. Inj. Abocain 5% 5ml infiltrated for ipsilateral pudendal nerve block. Inj. Abocain 5% 2ml infiltration in the base of fissure with hypodermic needle. Lateral interval sphincterotomy was done using closed technique as follows:

The anal fissure was identified by first physical examination then digital & proctoscopy was done to confirm fissure and to mete out any other pathological condition.

The anal fissure was identified using bivalve anal speculum, intersphincteric groove was palpated.

A cataract knife blade was inserted in intersphincteric groove in lateral quadrant. The knife was rotated with gentle care, the distal 1/3 of internal sphincter was divided. The wound packed with applying hand pressure, bleeding was stopped, dressing was done. The closed technique was done in left lateral position.

Results

A total of fifty patients were included in this study. Thirty three (66%) were male and 17(34%) were females. Mean age was 35 years. Out of fifty, 23(46%) patients were presented with pain, 6(12%)patients with bleeding, 5(10%) patients with constipation. Seven patients (14%) presented both with pain and bleeding, 9(18%) patients presented with pain, bleeding and constipation. Thirty nine patients (78%) were having a posterior anal fissure and 10(20%) patients were with anterior anal fissure. Immediate relief from pain and painless first bowel movements 24 hours to 48 hours after operation was accomplished in 49(98%) of patients.

No morbidity was found in 50 patients, so recurrence rate was zero percent. Wound healed within 6 days in

40(80%) patients, while in 10 (20%) patients healed in 21 weeks.

Table 1. Symptoms

Symptoms	n=	%age
Pain	23	46
Bleeding	6	12
Constipation	5	10
1&2	7	14
1,2&3	9	18

Sphincterotomy wound was healed within one month of time in 46(93%) of patients as shown in Table.

Postoperative complications were exceedingly minor and observed in series of eccymosis and haematoma. Difficulty in controlling flatus and faeces, wound infection are shown in Table. Patient acceptance was high. Forty three patients (86%) judged the results to be very good. The average cost per patient was Rs.350/-

Table 2. Site of fissure

Site	n=	%age
Anterior	10	20
Pos anal	40	80
Total	50	100

Table 3. Wound healing time

Time	n=	%age
<1 week	40	80
2 weeks	10	20
Total	50	100

Table 4. Patient acceptance

Acceptance	n=	%age
Very good	42	84
Satisfactory	5	10
Unsatisfactory	2	4

Table 5. Morbidity (Recurrence rate)

Recurrence	n=	%age
Recurrence within one month	0	0
Recurrence within 6 months	1	2

Table 6. Post operative complications.

Complications	n=	%age
Eccymosis and haematoma	2	4
Difficulty in controlling fetus and l	1	1
Wound infection	1	2
Total	4	

Discussion

The anal fissure is one of the most common cause of severe anal pain. Most of the classic literature associated with anal fissure focus on operative management. There are different treatment options surgical and non surgical.

In present study the success of procedure can be measured by immediate relief from pain and painless first bowel movements in 49(98%) of patients. No morbidity was found so recurrence rate was zero percent that can be compared with non surgical treatment.

Jansen[2] reported that patients treated with lignocain had healed fissure (60%), hydrocortison (82.4%) on the sitz bath (87%). The patient compliance is poor with GTN (51%) due to head ache. Lateral sphincterotomy and GTN cream heal approximately 95% and 65% of fissure respectively. So LIS has become a procedure of choice due to less morbidity and is superior to higher healing rate. McDonald et al ® published a 100 patient undergoing anal dilatation. He reported morbidity rate of 57%. Medline and cochrane[5] library were searched comparative study of at least two operative techniques. They concluded that anal stretch and postmidline internal sphincterotomy should probably be abandoned in the treatment of anal fissure.

We adopted the procedure partial subcutaneous internal sphincterotomy divided the distal 1/3 of sphincter with meticulous techniques. So our recurrence rate was zero percent. Wound healing was in excess of 98%. Most complications were minor and resolved spontaneously. This was in comparison with the study conducted by Neufield[6] who reported 92(85%) patients had no complaints at late follow up and only 3 reported either no improvement or recurrence. Postoperative complication rate were 9%.

Lateral sphincterotomy can be effectively performed under local anaesthesia and provides an alternative to general anaesthesia. AL Raymoony[7] demonstrated that there were no difference between two groups operated under local anaesthesia and general anaesthesia in terms of operating time, patient satisfaction with the method of anaesthesia.

In present study, the patient acceptance was high, forty two patients (84%) judged the result of LIS to be very good. Four patients (10%) considered it satisfactory. No hospitalization was required and time off from work was decreased. This coincides with the study conducted by Simkovic et al[8] where he found in 66(73.3%) patients the results to be very good. Only 4(4.4%) judged the result unsatisfactory.

In our study the average cost was Rs.350/- per patient. So it was cost effective to patient and as well as hospital. It was less psychological disturbance for patient and reduced risk of cross infection as no hospital admission required. This study was performed under local anaesthesia, so the hazards of general anaesthesia can be avoided.

Conclusion

The lateral sphincterotomy (closed technique) under local anaesthesia as a day case surgery offers simple and safe procedure, early cure rate in excess of 98% patients and complication rate exceedingly minor. The considerable cost effective to the patient and hospital, no hospital stay required. The patient acceptance is high. It can be

performed over the patient who are not fit for general anaesthesia.

So we recommended the closed lateral sphicnterotomy for chronic anal fissure under local anaesthesia as a day case surgery. The procedure of choice is still the gold standard treatment.

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