Lateral Internal Sphincterotomy V/S Anal Dilatation

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Objective: To compare the two surgical procedures performed for the treatment of fissure in ano. **Design:** Clinical trial **Setting:** Surgical Unit-III, Sir Ganga Ram Hospital, Lahore. **Subjects and Methods:** Sixty female patients coming to the out door and emergency department of Sir Ganga Ram Hospital, were included in the study. Thirty patients had open lateral internal sphincterotomy (LIS) and 30 had anal dilatation (AD). **Results:** LIS was associated with remarkably low incidence of post operative complications. The patients undergoing AD had more pain and bleeding per rectum in the postoperative period. Anal incontinence was seen in 59.6% of patients, prolapse of haemorrhoids in 40% and recurrence in 6.6% operated for AD, while the corresponding figures for LIS were 6.6%, 10% & 0% respectively ($p<0.05$). **Conclusion:** LIS is a superior procedure to AD for the surgical treatment of fissure in ano. LIS should be adopted as a procedure of choice in uncomplicated fissure in ano.

Key words: Fissure in ano, AD anal dilatation, LIS lateral internal sphincterotomy

Anal fissure is linear ulcer of the lower half of the anal canal located in the posterior commissure or less commonly in the anterior commissure in the midline. It is the commonest anal pathology seen in the surgical patients because it involves the highly sensitive squamous epithelium. It is often very painful and avoidance of defecation due to pain further compounds the problem[1]. Numerous authors have documented higher than normal resting anal canal pressure which explains why internal sphincterotomy relieves symptoms and heals the ulcerations. The diagnosis is confirmed by typical history of painful defecation and confirm by inspection after gently parting the anal verge either anteriorly or posteriorly in the midline. Digital rectal examination and proctoscopic examination may trigger sever pain and examination under anesthesia to rule out other diseases and confirm anal fissure is required in some cases. Internal anal sphincterotomy (a localized disruption of the sphincter results in less incontinence[2]. The internal anal sphincter should be divided upto the dentate line to minimize recurrence. Internal anal sphincter should be identified carefully[4]. To date, LIS has been favored by most of the proctologists because it is the least extensive surgical procedure and is offering a long standing relief in sphincter spasm[3].

Materials & Methods

The study was carried out on female patients with the diagnosis of fissure in ano admitted in surgical unit of Sir Ganga Ram Hospital Lahore from July 1998 to Oct 2002. The total number of patients were 60. The mean age was 33 years (range from 18 years to 48 years).

Inclusion criteria: All female patients were included.

Exclusion criteria: a) Lateral anal fissure, b) Anal fissure with suppuration, and c) Fissure with coexisting anal pathology. The total number of patients were 60. Their age ranged from 18 years to 48 years (mean age = 33 years). 26 patients had chronic fissure and 34 had an acute fissure in ano. The patients were subjected to anal dilatation and lateral sphinctertomy at random. 30 patients had LIS by open technique and 30 patients had Lords procedures done under anaesthesia. 20 patients had general anaesthesia 12 had spinal anaesthesia and 28 patients had regional anaesthesia in the form of saddle block (pudendal nerve block).

All 60 patients were observed during the post operative period for the pain and bleeding and were followed up for one year for other complications like anal incontinence haemorrhoidal prolapse and recurrence of anal fissure.

Results

Table shows the comparative analysis of the two procedures. It was observed that in the post operative period the morbidity and complications were remarkably low in case of LIS. The duration of pain, incontinence, haemorrhoidal prolapse and recurrence of fissure were significantly higher ($P<0.05$) in anal dilatation group.

Discussion

Anal fissure is a painful longitudinal ulcer located almost exclusively in the midline of the anus posteriorly or occasionally anteriorly. It may respond to conservative management (local anaesthesia) and laxative), however 60% of all patients will ultimately require surgical treatment[4]. Options available for surgical treatment are[5]:

1. Lateral internal sphincterotomy
2. Fissurectomy and midline sphincterotomy
3. Anal dilatation (lords procedures)

The four finger stretch produces uncontrolled fracturing of the internal sphincter. Even though it may give initial relief, approximately 40% of the patients treated by this way develop recurrence and a significant proportion is partially incontinent[5]. Lateral internal sphincterotomy is the operation of choice for the uncomplicated anal fissure but is unsuitable when acute or chronic suppuration exist at the sight of fissure[4]. The internal sphincter is divided in the lower half under direct vision in open LIS. The major

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