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# STUDY TO DETERMINE THE VARIOUS LOCATIONS OF ANAL FISSURES IN THE SURGICAL DEPARTMENT

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**Abstract:**
***Objective:*** *To learn about different locations of the anal fissure.*
***Study design:*** *A descriptive, cross-sectional study.*
***Place and duration:*** *In the Surgical Unit II of Services Hospital Lahore for one year duration from January 2019 to January 2020.*
***Methodology:*** *This is a prospective study that includes all patients who have come to an outpatient hospital and who have been diagnosed with anal fissure as well as physical examination and fissure location was recorded.*
***Results:*** *127 consecutive patients with anal fissures were included. The spectrum of various conditions includes pain during or after defecation, constipation or difficulty in defecation, PR bleeding, sudden pruitis or inflammation of the rectum, mucus secretion and bloating or flatulence.*
*Sixty (47.2%) patients had posterior midline fractures, 27 (21.3%) had anterior midline and 3 (2.4%) had lateral fractures. Anal fissures at various and multiple positions were found simultaneously.*
***Conclusion:*** *There are a much greater percentage of fissures located at other locations besides posterior midline across both sexes than is being traditionally reported in literature.*
***Keywords:*** *Anal fissure, rectal examination (DRE), painful defecation*

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## INTRODUCTION:

An anal fissure is a mild, painful, long ulcer on the long axis of the anal canal, just below the toothed line, extending to the anal border, i.e. the anode. It is a common condition that was first recognized as a disease in 1934, affecting the vast majority of the population, including all ages, but is particularly common in young, healthy adults. It occurs with equal frequency in both sexes and causes significant discomfort, social embarrassment, loss of working hours and poor quality of life.

Anal fissure;

1. Acute or superficial
2. Chronic anal fissure or anus ulcer

When it matures, the ulcer is associated with a skin tag (sentimental stack). Acute anal fissures become chronic anal fissures if not properly treated. Diagnosis of primary or idiopathic anal fissure is mainly based on history and benign rectal examination. Usually, the fissure that skips the anal canal with lateral traction of the canal, and the skin marker can be seen on the fissure itself.

If in doubt, anesthesia can be performed to accurately diagnose the condition. It is more common to exclude very serious pathologies that may be responsible for anorectal discomfort, because in situations where there is severe pain, proper evaluation may not be possible only through digital rectal examination. Sometimes EUA is combined with lateral internal sphincterotomy for chronic anal fissures that do not respond to conservative treatment.

In current literature there is a large inconsistency in the position of the anal fissure with the traditional teaching of the Goligher rule, which indicates that 90% of the fissures are located in the posterior midline of the skeletal muscle fibers surrounding the anus. are weaker. The next most common is the front center line, where 10% of fissures occur. Less than 1% is visible simultaneously in the front and rear positions. However, many studies report that many fissures are more common.

A study to examine the different locations of anal fissures in patients.

## METHODOLOGY:

This study was held in the Surgical Unit II of Services Hospital Lahore for one-year duration from January 2019 to January 2020. We included all subsequent patients aged 18 and older who had an anal fissure in the outpatient ward. Our hospital's ethics committee approved the study and informed consent was obtained in writing from all patients for examination.

The diagnosis was based on physical examination, proctoscopic examination and anesthesia (if necessary), including anamnesis and DRE. Presence or absence of pain (before, during or after defecation); bleeding (before, during or after defecation); constipation; itching neither; Mucus secretion and urinary incontinence in feces or flat foot have been observed. Patients were excluded with rectal history surgery, other anal diseases (abscess, fistula and cancer),

Fissures complicated by Crohn's disease, tuberculosis ulcer, leukemia ulcer, HIV ulcer, first and third-degree hemorrhoids, diabetes, cardiovascular disease, pregnancy and breastfeeding, anal fistula and narrowing. Patients who did not consent to the study, or who could not be determined, were also excluded from the study.

If the patient had anal pain during a bowel movement for less than two months, the presence of acute anal fissure was considered. Chronicity was defined as traits lasting more than 6 weeks, crack hardening, visible sphincter fibers on the floor, fissures and a guard pile. The study was designed as a descriptive cross-sectional study of one center.

### STATISTICAL ANALYSIS

Data was analyzed using SPSS 19.0 for Windows.

## RESULTS:

A total of 127 patients (mean age ± SD 38.19 ± 13.59 years, median 35 years, range 18-65 years). Fifty-nine (46.5%) patients' men and 68 (53.5%)) patients were women (Table I).

**Table I. Age and sex distribution of total patients with anal fissure (n=127)**

| Age (Years) | Male (No. %) | Female (No. %) | Total (No. %) |
|---|---|---|---|
| 18-27 Years | 14 (11.02) | 16 (12.60) | 30 (23.62) |
| 28-37 Years | 30 (23.62) | 13 (10.24) | 43 (33.86) |
| 38-47 Years | 12 (9.44) | 6 (9.44) | 18 (14.17) |
| 48-57 Years | -- | 21 (16.54) | 21 (16.54) |
| > 58 Years | 3 (2.36) | 12 (9.44) | 15 (11.81) |
| Total | 59 (49.5) | 68 (53.5) | 127 (100) |

While 84 (66.14%) patients had acute fissures, 43 (33.86%) patients had chronic fissures (Table II).

**Table II. Presenting complaints in patients with anal fissure (n=127)**

| Presenting Complaints | Present | | Absent | |
|---|---|---|---|---|
| | No. | % | No. | % |
| Pain before, during, after defection | 93 | 73.2 | 34 | 26.8 |
| Constipation | 81 | 63.8 | 46 | 36.2 |
| PR bleeding | 68 | 53.5 | 59 | 46.5 |
| Pruitis-ani/ peri-anal burning | 41 | 32.3 | 86 | 67.7 |
| Mucoid discharge | 25 | 19.7 | 102 | 80.3 |
| Incontinence to faeces or flatus | 24 | 24 | 103 | 81.1 |

The main complaints presented concerned pain before, during and after defecation (73.2%); constipation or defecation (63.8%); Bleeding PR before, during and after defecation (53.5%); sudden itching or burning in the anus (32.8%); mucous and halitosis (19.7%) and urinary or stool incontinence (18.9%) (Table III). Different locations of the observed anal fissure showed that anal fissures were formed much faster in both sexes outside the posterior midline.

## DISCUSSION:

In this study, as in previous reports, patients have almost equal distribution by gender. In the study carried out in Rawalpindi, the average age of patients was 31 years and average 34 years. It was 90.66% men and 9.34% women. 88% had a posterior aperture, 6.66% had an anterior aperture, 4 patients had a 5.33% anterior and posterior aperture. Most patients have this problem in the third and fourth decade of life (Table I).

In one study, Ammari reported anal fissures in 56% of women and 44% of men in the study population. Of these, 55% had posterior, 34% front, 5% front and rear, 3% front and side slots, 3% concurrent rear and side slots. In men, 78% of the slots were in the posterior midline, 13% in the front midline, 5% in parallel anterior and posterior positions, and 4% in parallel anterior and lateral positions. In one series, 87% of acute anal fissures were in the posterior midline and 13% in the anterior midline. Hananel reported that crevices mainly settle on the posterior midline, but 25% of women and 8% of men had anterior fissures.

## CONCLUSION:

Anal fissures are more common in the anterior midline than in conventional reports.

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