Anal fissures – a common but benign condition

Up to 70% of anal fissures can be managed successfully with non-operative measures, writes Tariq Cheema

**ANAL FISSURE** is a common benign anorectal condition. It accounts for up to 10% of outpatient referrals to colorectal clinics. Anal fissures are responsible for significant pain and anguish for the suffering patients. They are considered acute or chronic depending on duration of symptoms of more or less than four weeks.

**Presentation**
The majority of patients presenting with acute fissures are young and anxious, complaining of pain with defecation and bleeding, and often with recent onset constipation. Pain is usually during the act of defecation and may persist for minutes to hours afterward. It is described as a sharp stabbing to burning sensation.

Bleeding is limited, with a small amount of blood noticed on toilet paper or sometimes as a linear streak on the side of stools.

Excessive bleeding may be due to other anorectal conditions, commonly haemorrhoids. Constipation is a common cause of acute fissures and may be aggravated by pain and fear of pain at defecation.

**Pathophysiology**
Passage of hard stools causes direct trauma by tearing the anal mucosa. Anal fissures are also reported after normal bowel movement, diarrhoea and childbirth, suggesting other contributing factors.

Anatomically, the posterior aspect (6 o’clock) is the most common place for an anal fissure as this area is well supported by an anorectal sling. Mucosa at this location is firmly tethered to underlying muscle, making it less mobile and more prone to tearing.

Cadaver studies show poor arteriolar communications at this location, suggesting ischaemia as a contributing factor in development and poor healing. Poor blood flow plays a more significant role in chronic anal fissures. Increased resting tone of internal sphincter plays a role directly by increasing friction forces and indirectly by compromising the blood flow to anal mucosa.

Presence of multiple or atypical sites (lateral) should alert towards inflammatory bowel disease, tuberculosis, syphilis or HIV infection. Enquiry regarding sexual habits may be useful.

**Diagnosis**
In the outpatient setting, typical symptoms in acute presentation are diagnostic, confirmed with presence of inflamed sentinel tag and increased anal tone. Digital examination often fails due to severe pain and is best not attempted in acute cases.

**Management**
Management of anal fissures is operative or non-operative.

**Non-operative measures**
The aims of non-operative management are to avoid constipation, achieve pain relief, decrease anal tone and maintain local hygiene. These are discussed in more detail.
Avoiding constipation

The aim is to pass a bulky soft bowel movement every day. It minimises further trauma and gently dilates the anal sphincters. Dietary modification in the form of high fibre intake and high water intake is essential. In addition, use of bulk-forming laxatives and stool softeners may be required.

Pain relief

Topical application of 1% lignocaine before and after bowel movement helps relieve the pain and anxiety of pain associated with defecation. In addition, oral pain relief may be used, avoiding narcotics which may aggravate constipation.

Decreasing anal tone

This can be achieved by the use of GTN cream 0.2-0.4% applied topically to perianal skin. It works due to the presence of N2O receptors in the internal sphincter muscle. Similar decrease in tone may be achieved by use of oral or topical calcium channel blockers.

The main side-effect is severe headache, which may require that treatment is discontinued in a small proportion of patients. Healing rates of 70-80% are reported with these agents.

Botulinum toxin A (Botox) injection has shown healing rates of 70-90%. The exact mechanism of action and best location to inject still remains debatable. The main effect of the injection is the weakening of anal muscles.

Injection may be given on either side of the anal fissure or in the inter-sphinicteric plane. Transient incontinence is not uncommon and is self-limiting. Other complications are rare.

Local hygiene

Sitz baths (shallow, warm water bath), wet wipes and washes with water jets helps clean the area, decreases irritation and are soothing.

Resistance to treatment

Some 15-30% of anal fissures are resistant to medical treatment. In addition, the sentinel pile does not resolve and the irritation on the perianal skin may persist, causing dermatitis and bleeding at wiping post-defecation. For these to resolve, surgical intervention is required.

Surgical treatment

Surgical treatment provides the highest rate of healing. Two procedures are commonly used.

Anal stretch (Lord’s procedure)

Under general anaesthesia, four-finger dilatation of anal sphincter is performed. This procedure has a healing rate of more than 90%.

The principle is to decrease the tone of internal sphincter by disrupting the muscle fibres.

The damage to the sphincter is unpredictable and risk of incontinence is unacceptably high. Although the procedure is performed by many, its use is generally discouraged.

Lateral internal sphincterotomy

This remains the gold standard for the management of both acute and chronic anal fissures. The procedure involves feeling the internal sphincter and the division protecting the external sphincter.

Division is required to the upper level of the fissure seen visually or to the level of the dentate line. The sentinel pile can be excised at the same time.

The main risk is of incontinence, especially to flatus which may occur in up to one-third of patients. This procedure should be used cautiously in multiparous females and patients with weak pelvic floor muscles.

Personally, I favour medical treatment initially for four to six weeks.

Depending on the response to treatment, if the anal fissure is not fully healed, I would repeat medical treatment or offer surgical intervention in the form of lateral sphincterotomy, taking in account the patient’s symptoms, wishes and suitability.

In summary, anal fissures are a benign but painful perianal condition managed successfully in 70% of cases with non-operative measures. Lateral internal sphincterotomy remains the gold standard for healing of this common problem.

High fibre/water intake, regular bowel habits and avoiding constipation may be preventative.

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