

# Anal Fissures

## What do you know about anal fissure?

An anal fissure is a cut or tear of the anal skin after a hard bowel movement. The pain usually happens after the bowel movement and can last for several hours. The pain can be severe and the patient may develop a fear of having a bowel movement. Anal bleeding is also common. Anal fissures affect a patient's overall quality of life.

### *Classification of anal fissures*

#### ◆ **Acute**

Defined as those healing spontaneously within 6 weeks and which look similar to a paper cut in the distal anal skin.

#### ◆ **Chronic**

Persist much longer and tend not to heal without medical intervention, they are wider and deeper than acute fissures and muscle fibers of the internal sphincter can be seen at the fissure base with little granulation tissue present.

### *Causes of anal fissures*

Usually caused by a hard bowel movement that tears the anal skin. This tear causes the anal muscles to spasm. This muscle grows and continually contracts which makes it even more difficult for a hard bowel movement to pass. This also decreases the blood supply to the anus, causing it not to heal well. Other causes include diseases such as Crohns, ulcerative colitis, inflammatory bowel, human immunodeficiency virus (HIV), syphilis and tuberculosis.

### *Complications of anal fissures*

Severe pain, anal bleeding, swelling, discharge, and anal itching. If left untreated, these tissues may also become infected.

## What options do patients have to manage anal fissure?

### Non-surgical treatments

#### ◆ **Topical treatment**

Less invasive methods of treatments have proven to be effective in many cases. Examples of treatments include topical nitrates, calcium channel blockers, and botulinum toxin injections (Botox).

### **Pharmaceutical treatment:**

#### ◦ *Topical Nitroglycerin (GTN):*

A 0.2% GTN topical ointment is safe and effective with mild and tolerable side effects of headache and local burning sensation which can be easily managed by an analgesic such as Tylenol®.<sup>1,2</sup>

Topical GTN ointment can be prepared in a compounding pharmacy. When applied topically, it is absorbed through the skin and works by producing significant sphincter relaxation, reducing pain, and in most cases heals anal fissures.<sup>1,2</sup>

#### ◦ *Calcium-channel blockers:*

Topical formulations of diltiazem and nifedipine are available in compounding pharmacies. They work by causing smooth muscle to relax, which increases blood supply to the area and allows it to heal. Some studies found that 0.2% nifedipine gel applied twice daily resulted in healing anal fissures after 3 weeks of treatment with no systemic or local side effects. Also a 2% topical diltiazem ointment was found to be equally effective to that a 0.2% GTN after three months of treatment.<sup>1,4</sup>

#### ◦ *Botulinum toxin (Botox):*

Administered by injection, it requires specialized training for best results. This paralyzes the anal sphincter muscle and allows it to heal. It has a fair chance of working and is associated with no complications. However, topical treatments usually work faster than botox.<sup>2,3</sup>

## Surgical treatments

Lateral internal sphincterotomy (LIS), which means to partially cut the internal anal sphincter to allow it to relax. However, this procedure carries a potential risk of postoperative incontinence and should be reserved for patients that do not respond to topical treatment.

## Tips to promote healing and reduce recurrence

- Increasing fiber in the diet, bulking agents (fiber supplements), stool softeners, and plenty of fluids help relieve constipation, promote soft bowel movements, and aid in the healing process.
- Warm baths for 10-20 minutes several times each day are soothing and promote relaxation of the anal muscles, which can also help healing.
- Avoid trauma or injury to the area.
- Use personal wipes instead of toilet paper.
- Treat causative diseases of anal fissure

## References

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