Q: What treatments are now available for the management of anal fissures?

A: Anal fissures are ulcerations of the mucous membrane of the anus caused by either local trauma (straining or passing hard stool) or the result of complications from a chronic condition (e.g. Crohn’s disease). The primary signs and symptoms of anal fissures include pain (lasting up to several hours) and blood appearing in the stool or on toilet paper after defecation. Pain is secondary to spasm of the internal anal sphincter (IAS) and results from ischemia or hypertonicity of the sphincter muscle. Initial treatment may include increasing daily fluid intake and sitz baths. Stool softeners (e.g. docusate), topical analgesics (e.g. lidocaine) and anti-inflammatory agents (e.g. hydrocortisone) may be of particular benefit. The most studied drug treatment for anal fissures is topical nitroglycerin. Nitroglycerin increases local blood flow by relaxing the anal sphincter, thus decreasing sphincter pressure. Common adverse effects consist of headaches (20-30%) and orthostatic hypotension which may be avoided through slow dosage titration. This product was frequently compounded in 0.2% formulations using a variety of vehicles such as white petrolatum, lanolin, lidocaine, etc. Less studied, but effective treatment options include calcium channel blockers such as diltiazem (2% gel) (PIC Question 10.25.04) and nifedipine (0.2%-0.5% gel or ointment). Specific formulations for these compounded products may be located in the accompanying references. Topical calcium channel blockers lower resting anal pressure and relax the IAS by inhibiting calcium entry thru voltage-sensitive gates located in the vascular smooth muscle. Topical use of calcium channel blockers may be preferred to nitroglycerine because of a better adverse effect profile. One additional alternative is the local injection of botulinum toxin; however, use of this agent requires additional study. In June 2011, the FDA approved a 0.4% nitroglycerin ointment (Rectiv; Aptalis Pharma) used twice daily for the treatment of anal fissures. Due to frequent occurrence of headache, it is recommended that acetaminophen be administered prior to application of the ointment. If medical treatment options are unsuccessful, patients may elect to undergo a surgical procedure known as lateral internal anal sphincterotomy. The cure rate for the procedure is ~95%; however, subsequent fecal incontinence may approach a frequency of 5%. This procedure is therefore reserved as one of the final options for treatment of anal fissures. Rectiv is quite expensive ($438 per 30 g tube), thus some physicians (and patients) may prefer the continued prescription of compounded formulations of nitroglycerin and calcium channel blockers.

References:
- PL Detail-Document, Rectiv (Nitroglycerin 0.4% Ointment) for Anal Fissure. Pharmacist’s Letter/Prescriber’s Letter. January 2012.

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