ANAL FISSURES

Edited by dr.ssa Margherita Lambertini (margherita.lambertini@tin.it), prof. Aldo Infantino (ainfantino@libero.it)

WHAT IS IT?

It is a drop-shaped little tear, generally located on the back line (in 10% of women is at the front, very rarely in the lateral position)

WHY DOES IT FORM?

There is no universally accepted theory, but several factors combine to determine or predispose to its formation. An evacuation of hard stools, especially if difficult and prolonged, may cause a laceration. Even stress, which causes an involuntary spasm of the internal sphincter (one of muscles of the anus) and therefore an obstacle to the expulsion of feces may causes the formation of a fissure. Chronic diarrhea, local trauma and inflammatory diseases involving the anal canal can cause fissures. Once formed, the pain felt during the passage of stool causes a prolonged spasm of the internal sphincter, establishing a vicious cycle that does not allow healing.

WHAT ARE THE SYMPTOMS?

The main symptom is pain, very intense, during passing of stools, that frequently persists for several minutes to several hours. There may be slight bleeding (blood on toilet paper), and itching.

HOW TO MAKE DIAGNOSIS?

A fissure is visible at medical examination, and, if pain is not too intense, digital rectal examination allows sphincter tone evaluation. Its characteristics, rather than duration, allows to distinguish acute from chronic, the latter often accompanied by a skin tag outside and a hypertrophied papilla inside. Differential diagnosis should include fissures secondary to chronic inflammatory diseases (Crohn's disease and ulcerative colitis), syphilis or tuberculosis with ulcers, anal tumors and precancerous lesions, and traumatic injuries.

HOW CAN IT BE CURED?

Approximately 2/3 of acute fissures and half of chronic ones tend to heal with a conservative approach, which involves the use of bulking agents and a high fiber diet with adequate intake of water (at least 2 liters of natural mineral water a day) to prevent the passage of hard stools. Several hot baths a day help healing, as heat reduces spasm of the muscles, even if of this there is not scientific evidence. No scientific confirmation in Literature also for the of anal dilators, which exploit both the mechanical action and the effect of heat to reduce sphincter hypertonia, but they seems to reduce significantly the need for surgery. The controlled anal dilation is the last, in order of time, treatment option, and consists in the sphincter distension at a controlled pressure, with a balloon introduced into the anal canal, with no risk for incontinence. Early results show an efficacy rate about 95% , but further confirmatory studies are needed. Medical therapy, including ointments made from nitroglycerin, calcium antagonists, and local injections of botulinum toxin have similar efficacy to each other, producing an improvement which not always persists in the time and, mainly, it can be observed a recurrence of the fissure in about half the cases. However, recent italian data related to glyceryl trinitrate ointment 0.4% appear to be promising in terms of rapid pain relief and healing in the long term. Surgical treatment consists of the internal anal sphincterotomy, that is partial section of the internal sphincter performed under local anesthesia and usually an outpatient or day surgey procedure, which

immediately solves both pain and spasm, allowing the fissure to heal within a few weeks. In a recent review of the literature the relapse rate at 2 years was 3%. Continence disturbances associated with this surgery are minor, rare and usually transient. Another surgical option is the anoplasty, that is taking out of the fissure and repair of the wound with a flap of anal mucosa. It is especially indicated when there is no sphincter hypertonicity, in case of previous anal surgery, and in the presence of associated skin lesions (skin tags, hypertrophic papilla).

IS THERE ANY RELATIONSHIP WITH CANCER?

There is no correlation between cancer and anal fissure. Cancer of the anus, rare but increasing disease, may have similar symptoms . Therefore colon proctologist consultation is essential to confirm the suspected diagnosis and set the proper care.

Bibliography:

1. Lindsey I, Jones OM, Cunningham C, George BD, Mortensen NJ. Botulinum toxin as second-line therapy for chronic anal fissure failing 0.2 percent glyceryl trinitrate. Dis Col Rect. 2003;46:361-6.
2. Mentes B, Irkorucu O, Akin M, Leventoglu S, Tathcioglu E. Comparison of Botulinum Toxin Injection and Lateral Internal Sphincterotomy for the Treatment of Chronic Anal Fissure. Dis Col Rect 2003;46:232–7.
3. De Nardi P, Ortolano E, Radaelli G, Staudacher C. Comparison of glyceryltrinitrate and Botulinum toxin-a for the treatment of chronic anal fissure; long term results. Dis Colon Rect 2006;49:427-32.
4. Brisinda G, Cadeddu F, Brandara F, Maringa G, Maria G. . Randomized clinical trial comparing botulinum toxin injections with 0.2 per cent nitroglycerin ointment for chronic anal fissure. . Br J Surg. 2007; 94:162-7.
5. Lock R, Thompson JPS Fissure-in-ano:the initial management and prognosis. Br J Surgery 1977;64:355-8.
6. Nelson R. Non surgical therapy for anal fissure (Review). Cochrane Database of Systematic Reviews 2006, Issue 4 Art No: CD003431 DOI: 101002/14651858CD003431pub2 The Cochrane Library http://wwwthecochranelibrarycom
7. Altomare DF, Binda GA, Canuti S, Landolfi V, Trompetto M, Villani RD. The management of tatients with primary cronic anal fissure: a position paper. Tech Coloproctol. 2011 Jun;15(2):135-41. Review.
8. Renzi A, Izzo D, Di Sarno G, Talento P, Torelli F, Izzo G, Di Martino N. Clinical, manometric, and ultrasonographic results of pneumatic balloon dilatation vs. lateral internal sphincterotomy for chronic anal fissure: a prospective, randomized, controlled trial. Dis Colon Rectum. 2008 Jan;51(1):121-7.