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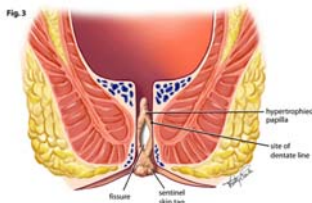
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Introduction

Chronic anal fissure is a painful common proctological problem involving a tear or ulcer in the epithelium of the anus, which exist longer than 6 weeks. A proportion of patients with chronic anal fissure have a history of constipation and obstructed defecation. Damage of the anal mucosa may lead to hypersensitivity of the contact receptors of the external anal sphincter(EAS) continence reflex resulting in overreaction of the reflex that leads to hypertonicity of the EAS. In patients with anal fissure a paradoxical contraction of the puborectalis muscle can occur resulting in an increase in the anorectal angle, prohibiting the normal passage of stool.

In 10% of patients, the anal fissure does not heal, with conservative therapy. In those cases, local botulin toxin injections, lateral internal sphincterotomy (LIS) and or fissurectomie are recommended. A LIS is still the standard care for surgical treatment of anal fissures despite the potential complication of incontinence. However, possibly in this patient category pelvic floor dysfunction could be a contributing factor in delayed healing. Effects of treatment with pelvic floor physiotherapy on dyssynergia on healing of anal fissure are currently unknown.

The aim of the present study was to evaluate the relation of pelvic floor dysfunction and chronic anal fissure.



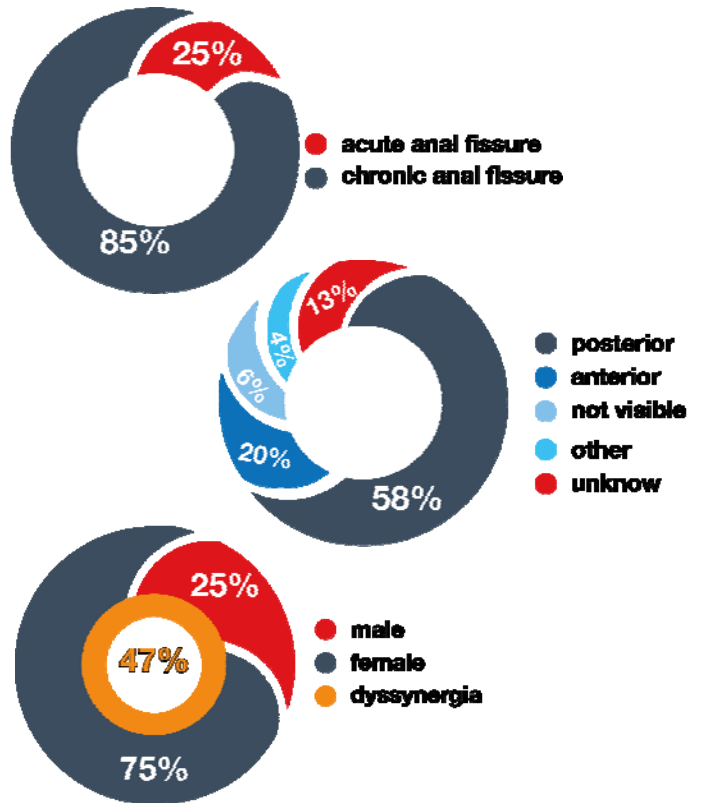
Methods

Patients with chronic anal fissure presenting or referred to an independent treatment center were analysed from 2016-2017. Local treatment consisted of application of either 2% diltiazem, 3 times each day or isosorbidedinitrate (ointment) 5 times each day. Patients with a history of obstipation or Bristol 1, 2 or 3 stools and straining during defecation received laxatives, mostly consisting of fibres and advice regarding their diet and toilet habits. Pelvic floor dyssynergia was diagnosed by digital rectal examination and transperineal ultrasound. When pelvic floor dysfunction like dyssynergia and/or hypertonicity was evident, patients received therapy including biofeedback. Quality of life was measured by SF-36 questionnaire, pain was scored using a VAS-scale (range 0-10). Obstructed defecation was measured using the Altomare questionnaire (range 0 – 31). Results were analysed with SPSS-version 24.



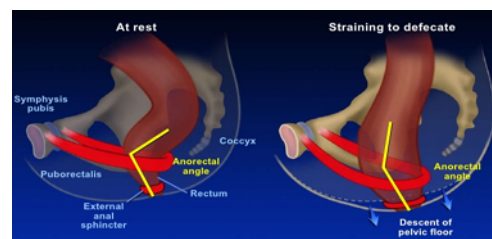
Biofeedback

Results



Interpretation

Patients presenting with anal fissure in a referral centre often have longstanding complaints and an inadequate response to conservative treatment methods. Obstipation was not a main complaint in this group. A careful anorectal examination was performed in every patient including pelvic floor examination. This was completed by endo-anal ultrasound and perineal ultrasound. Almost 50 % of the patients demonstrated pelvic floor dysfunction like dyssynergia.



Normal defecation pattern and pelvic floor muscles

Conclusion

Pelvic floor dyssynergia was found in a large percentage of the patients presenting with anal fissure. We hypothesise that pelvic floor examination and pelvic floor physiotherapy may be important in the treatment of chronic anal fissure.