

ANAL FISSURES AND FISTULAS

Anal Fissures

- Superficial tear in the anoderm distal to the dentate line
 - Usually posterior midline → skeletal muscle fibers are the most weakest
 - 99% men, 90% women
 - Most common anorectal disease in pediatrics
 - Equal incidence in men and women, midline are most commonly found in women

Clinical

- History
 - pain with bowel movement
 - blood coated stools/toilet paper (70%)
 - rectal pain (burning, cutting, tearing), itch
 - perianal skin irritation
- Physical
 - Inspection of anal mucosa
 - Digital exam usually not possible



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Pathogenesis

- Tear → exposed internal sphincter goes into spasm → pain, pulling of edges of fissure apart → impaired wound healing
- Insufficient blood supply: Blood flow to post midline is $< \frac{1}{2}$ that in other parts
- Increased pressure: some suggestions may be higher in these pts

Chronic fissures:

- Deep ulcer
- Sentinel pile → skin tag
- Enlarged anal papillae

Etiology

- Hard stool
- IBD/Crohn's (30-50%) – especially if not in midline
- Anal trauma (intercourse, abuse)
- TB, leukemia, AIDS

Treatment

- Conservative (80% resolve)
 - Warm sitz baths after bowel movement
 - Pain control
 - Stool softeners
 - High fiber diet

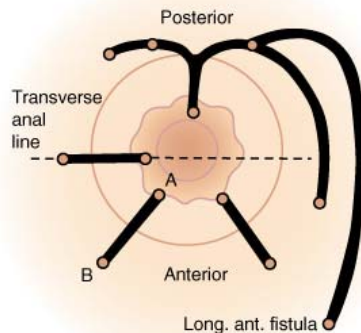
- Topical
 - 0.2% NTG → increase blood flow (side effects: headaches)
 - Botox (last 3 months)
 - Diltiazem, nifedipine
- Surgical
 - Lateral internal sphincterotomy → division of IAS from its distal most end for a distance equal to that of the fissure or to dentate line
 - R/L lateral quadrants
 - Risks: fecal incontinence, incontinence to flatus, mild fecal soiling (mild to moderate incontinence is most common)
 - Usually no long term sequelae
 - Recurs in 1-6% (usually have underlying etiology)

Fistula-in-Ano

- Usually from previous anorectal abscess (40%)
 - Equal incidence in men and women

Clinical

- History
 - Perianal discharge
 - Pain
 - Skin excoriation
 - Opening
- Physical
 - External opening of perineum
 - DE reveals fibrous cord, spontaneous drainage, internal opening (injection of H₂O₂ into tract)
 - **Goodsall's Rule:**



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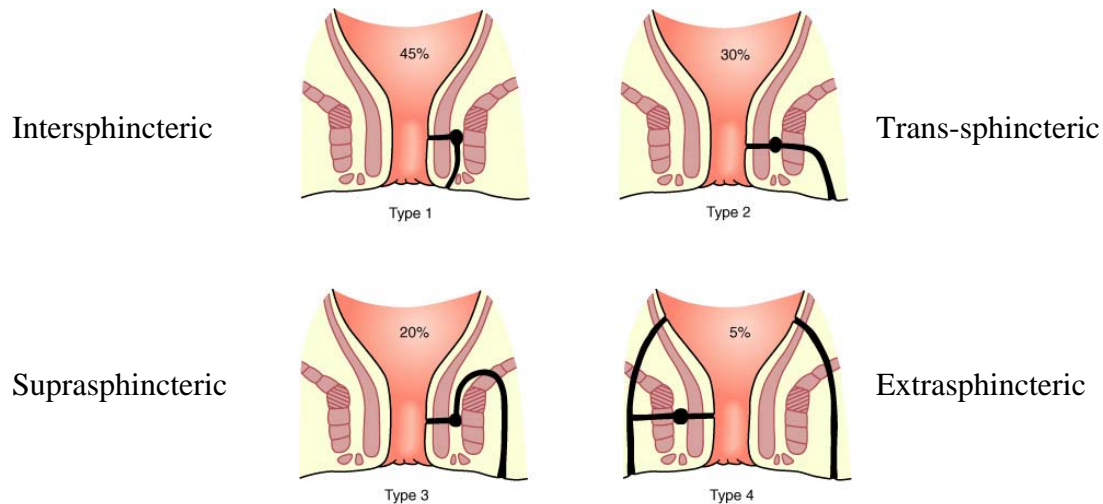
Pathogenesis

- Abscess → drains → granulation tissue-lined tract forms

Etiology

- Abscess
- IBD
- Malignancy
- Radiation proctitis

Classification of fistulas



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Treatment

- Fistulotomy – incise tract open since division of internal sphincter only
 - Intersphincteric, low transsphincteric
 - Marsupialization of edges to promote healing
- Advancement flap – a flap of mucosa is made and placed to cover the internal opening of the fistula, the external opening is sutured/glued closed
 - High transsphincteric, suprasphincteric, extrasphincteric
- Fistula plug/glue – collagen plug or fibrin glue is placed/injected into fistula tract
- Cutting seton – place a seton through the fistula tract and tighten it sequentially until it eventually cuts through the fistula tract
 - Slow process allows sphincters to scar and prevents sudden/wide disruption of sphincter
 - High transsphincteric, (suprasphincteric, extrasphincteric)

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