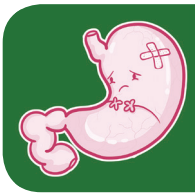

NOTES
RECTAL & ANAL PATHOLOGY

GENERALLY, WHAT IS IT?

PATHOLOGY & CAUSES

- Diseases affecting rectum and anal region

COMPLICATIONS

- Discomfort during defecation, itching, pain, bleeding

SIGNS & SYMPTOMS

- Visible abnormalities

DIAGNOSIS

- History, physical examination

TREATMENT

- Change dietary/defecation habits, pharmacological, surgical

ANAL FISSURE

osms.it/anal-fissure

PATHOLOGY & CAUSES

- Anal mucosa linear fissure
- Hard bowel movement → anal mucosa stretches → acute fissure → internal anal sphincter spasms → blood flow reduces → difficult healing → chronic fissure
- Midline, anteriorly/posteriorly

RISK FACTORS

- Low fiber diet
- Diarrhea
- Previous anal surgery
- Anal trauma
- Abnormalities in internal anal sphincter
- Sexually transmitted infections (STIs)
  - *Human papillomavirus* (HPV), herpes, chlamydia
- Inflammatory bowel disease (IBD)

COMPLICATIONS

- Fecal bacteria infection

SIGNS & SYMPTOMS

- Midline tear
- Pain during bowel movements → fear of defecation → constipation → harder stool → more pain
- Blood on toilet paper/stool

DIAGNOSIS

- History, examination of anal region/rectum

TREATMENT

MEDICATIONS

- Stool softeners
- Topical nitrates/calcium channel blocker (e.g diltiazem)

SURGERY

- Sphincterotomy

OTHER INTERVENTIONS

- Proper anal hygiene
- Warm bath (AKA sitz bath)
- Muscle relaxation → increase healing mechanisms
- Fiber supplementation

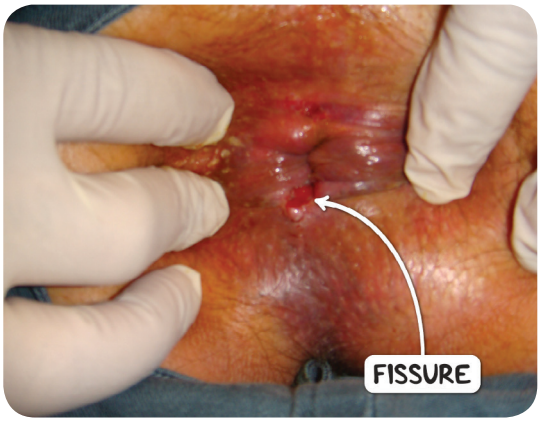

Figure 42.1 The clinical appearance of an anal fissure affecting the posterior anal mucosa.

ANAL FISTULA

osms.it/anal-fistula

PATHOLOGY & CAUSES

- Abnormal communication between anal canal, perianal skin
  - *Fistula:* Latin (pipe, catheter), from *findo* (cleave, divide, split)
- Foreign material in anal crypts → anal glands ducts blocked → anal abscess → pus travels to skin through tract

TYPES

Intersphincteric

- Internal anal sphincter → space between internal, external anal sphincters (AKA intersphincteric plane) → skin

Transsphincteric (U-shaped fistula)

- Internal anal sphincter → intersphincteric plane → external anal sphincter → skin

Suprasphincteric

- Internal anal sphincter → puborectalis muscle → space between puborectalis, levator ani muscle → skin

Extrasphincteric

- Rectum/sigmoid colon → levator muscle ani → skin

SIGNS & SYMPTOMS

- Skin excoriations, pus/serous fluid/feces draining from skin-opening, bleeding, itching, pain, redness, swelling

DIAGNOSIS

OTHER DIAGNOSTICS

- Anal examination → delineate course of fistula

TREATMENT

SURGERY

- Drain infection → eradicate fistulous tract → preserve anal sphincter function → avoid recurrences

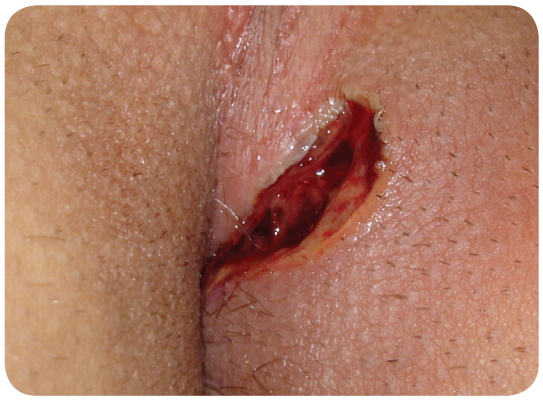

Figure 42.2 Surgical wound following removal of an anal fistula.

HEMORRHOID

osms.it/hemorrhoid

PATHOLOGY & CAUSES

- Anal cushions hypertrophy due to supportive tissue deterioration

TYPES

Internal

- Affecting hemorrhoidal venous cushions above dentate line
  - *Grade I:* bleed but not prolapse
  - *Grade II:* prolapse on straining but reduce spontaneously
  - *Grade III:* prolapse on straining, require manual reduction
  - *Grade IV:* spontaneous, irreducible prolapse

External

- Affecting hemorrhoidal venous cushions below dentate line

RISK FACTORS

- Constipation (low fiber diet), strenuous defecation, diarrhea, prolonged sitting, aging, increased intra-abdominal pressure, pregnancy, intra-abdominal mass, ascites, portal hypertension

COMPLICATIONS

Internal hemorrhoids

- Bleeding with bowel movements
- Prolapsing
- Incarceration, strangulation → pain
- Mucus deposits on perianal tissue → itching

External hemorrhoids

- Bleeding
- Acute thrombosis → acute pain
- Itching
- Hygiene difficulties

SIGNS & SYMPTOMS

- Itching
- Bleeding associated with bowel movement → bright red blood on toilet paper
- Pain
- Mucous discharge
- Perianal mass in case of prolapse

DIAGNOSIS

DIAGNOSTIC IMAGING

- Anoscopy for internal hemorrhoids

OTHER DIAGNOSTICS

- Anal, perianal inspection
- Digital rectal examination

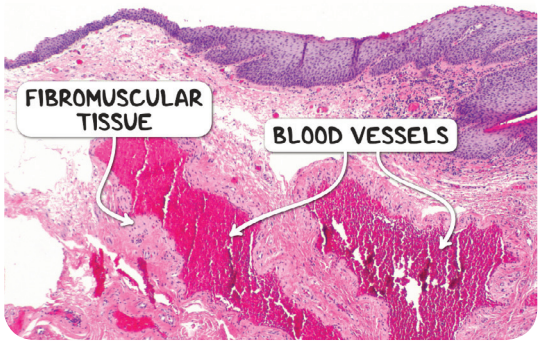

Figure 42.3 The histological appearance of an excised hemorrhoid. There is fibromuscular hyperplasia and numerous dilated vascular spaces.

TREATMENT

MEDICATIONS

- Stool softeners
- Topical, systemic analgesics

SURGERY

- Sclerotherapy, rubber band ligation, infrared coagulation

OTHER INTERVENTIONS

- Increase fiber, fluid intake

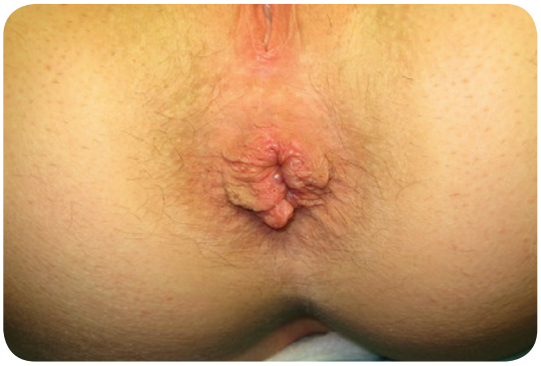

Figure 42.4 External appearance of grade 2 hemorrhoids.

RECTAL PROLAPSE

osms.it/rectal-prolapse

PATHOLOGY & CAUSES

- Partial/total slip of rectal tissue through anal orifice

RISK FACTORS

- Constipation, diarrhea, pregnancy, pelvic floor damage

COMPLICATIONS

- Mucous discharge, bleeding, fecal incontinence, constipation, rectal ulceration

SIGNS & SYMPTOMS

- Mass protruding through anus
  - After defecation; when sneezing/coughing; when walking → pain, rectal bleeding, incontinence

DIAGNOSIS

OTHER DIAGNOSTICS

- Physical examination
  - Prolapse clearly evident

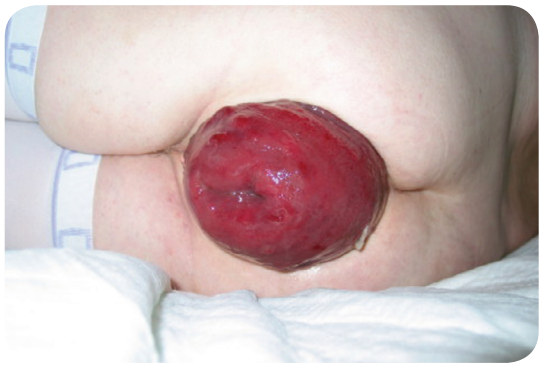

Figure 42.5 A complete rectal prolapse.

TREATMENT

SURGERY

- Sutures/mesh slings to anchor rectum to posterior wall of pelvis (sacrum)
  - Open or laparoscopic
- Rectosigmoidectomy
  - Part of rectum and sigmoid pulled through anus and removed, reanastomosis of remaining rectum to colon
  - Usually reserved for severe prolapse/non-candidates for open/laparoscopic procedure

OTHER INTERVENTIONS

- High fiber diet, enemas, suppositories (to avoid constipation/straining)
- Kegel exercises may help limit progression