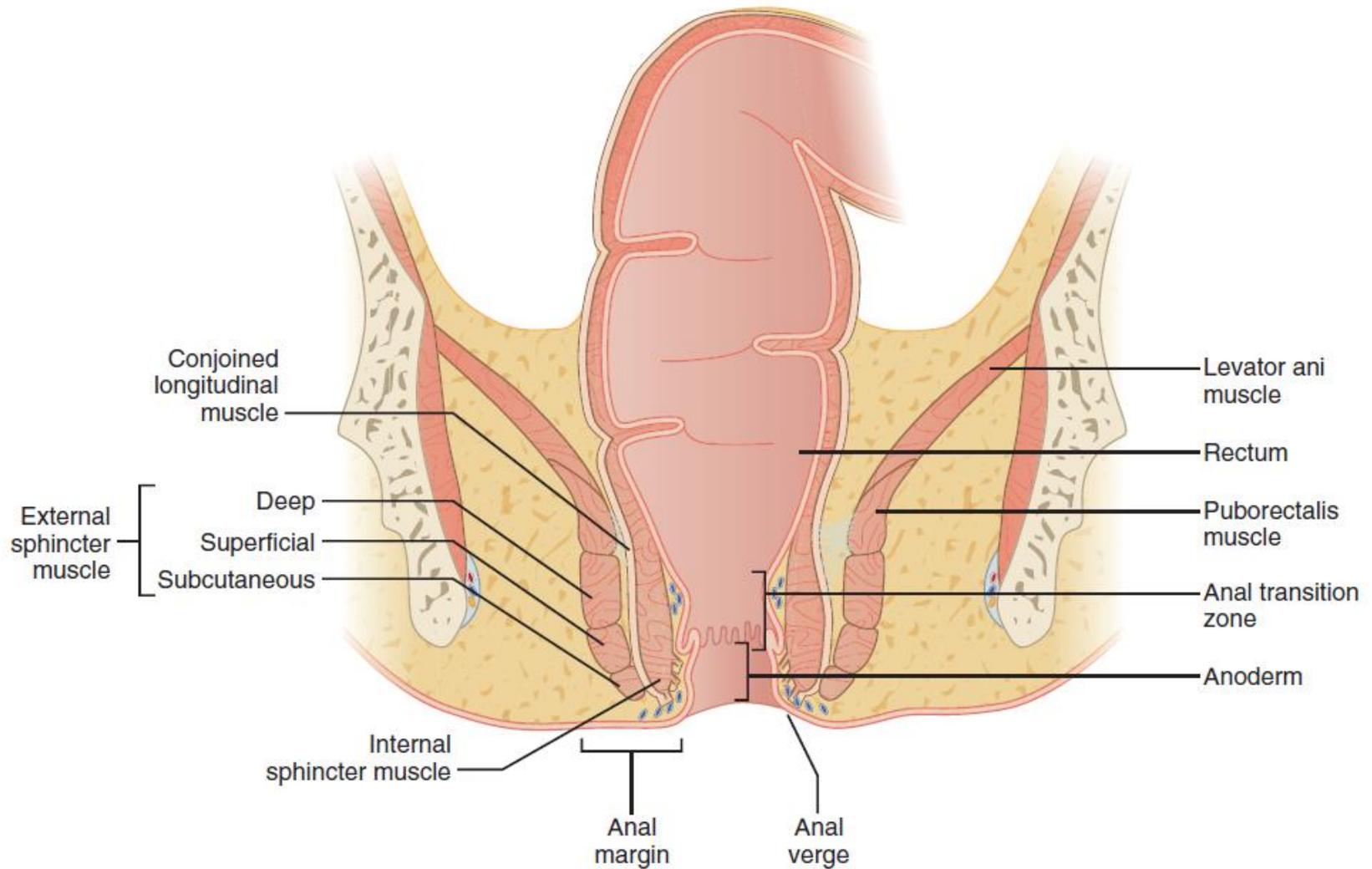


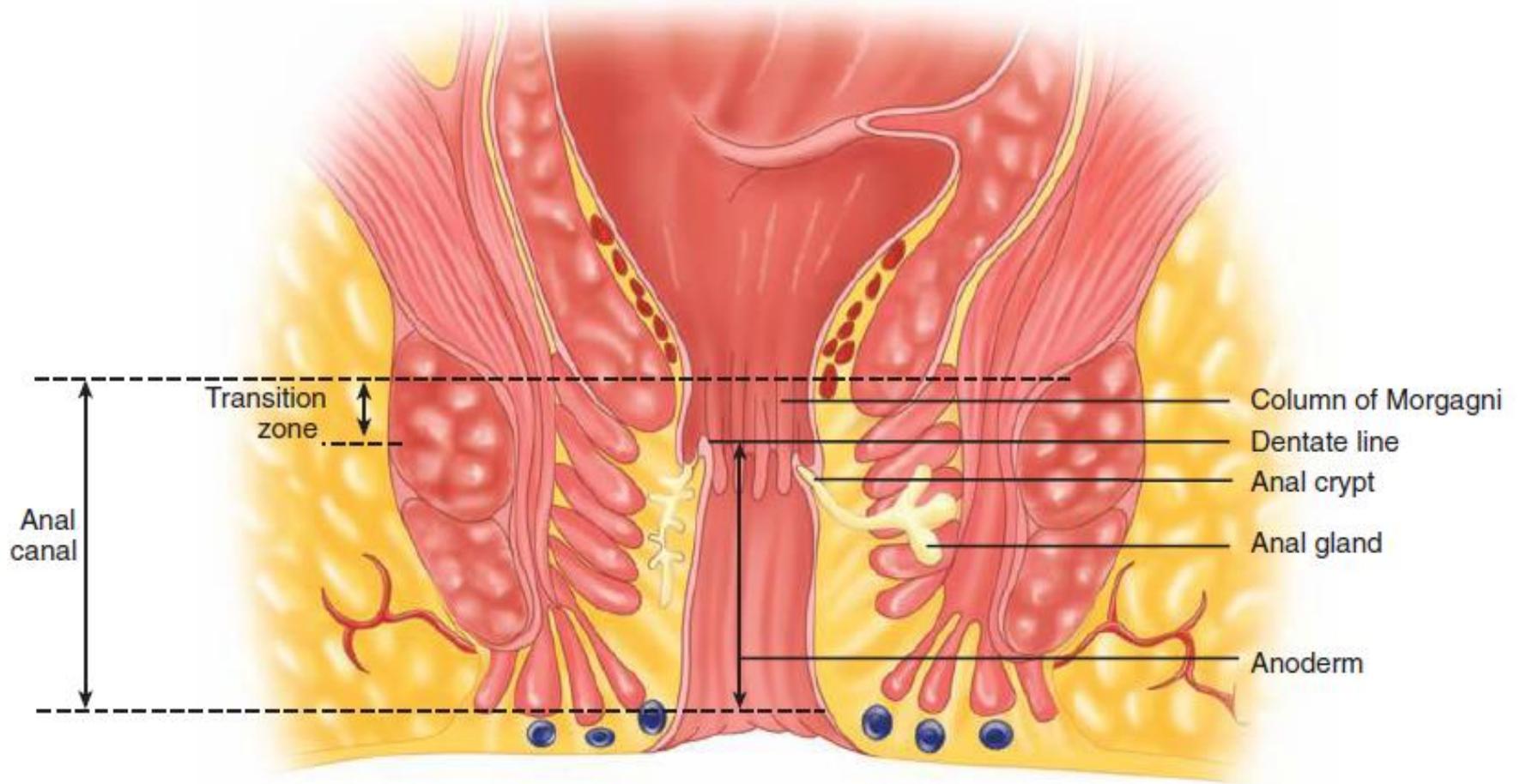
# Anorectal Diseases

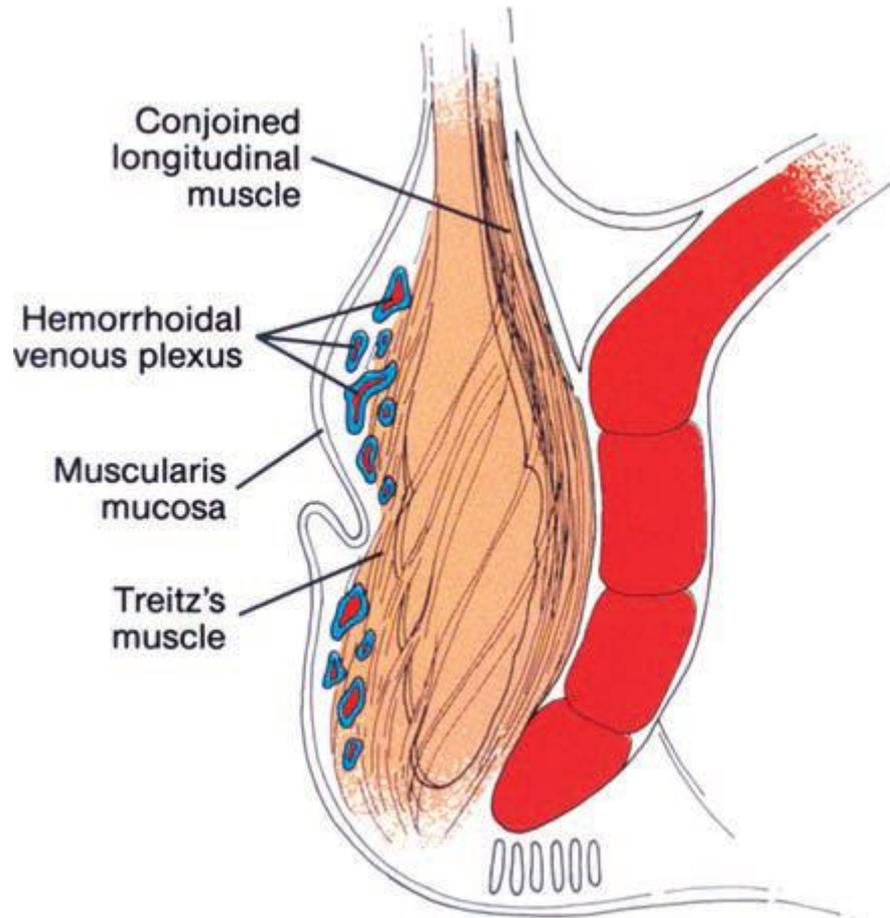
**Dr. Ali Jad Abdelwahab**

# Anatomy



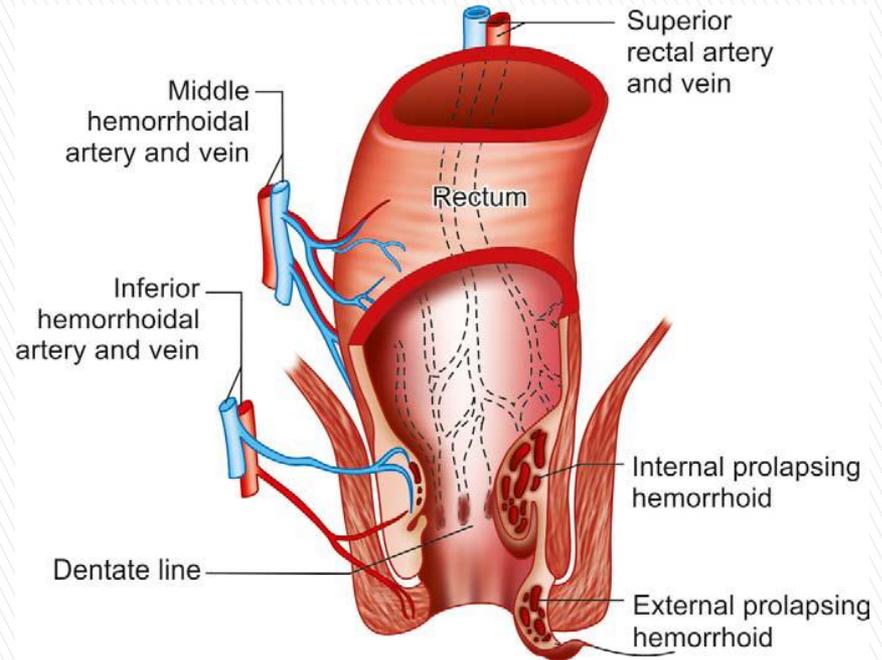
# Anatomy





# Hemorrhoids

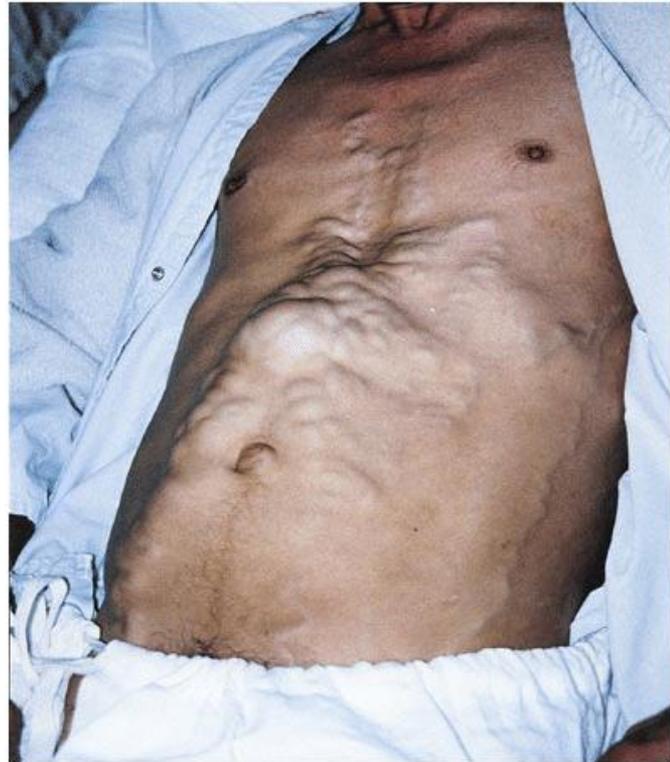
- ▶ Hemorrhoids are vascular cushions located in the anal canal.
- ▶ Hemorrhoidal disease: Dilation of anal venous structures causing protrusion and /or bleeding



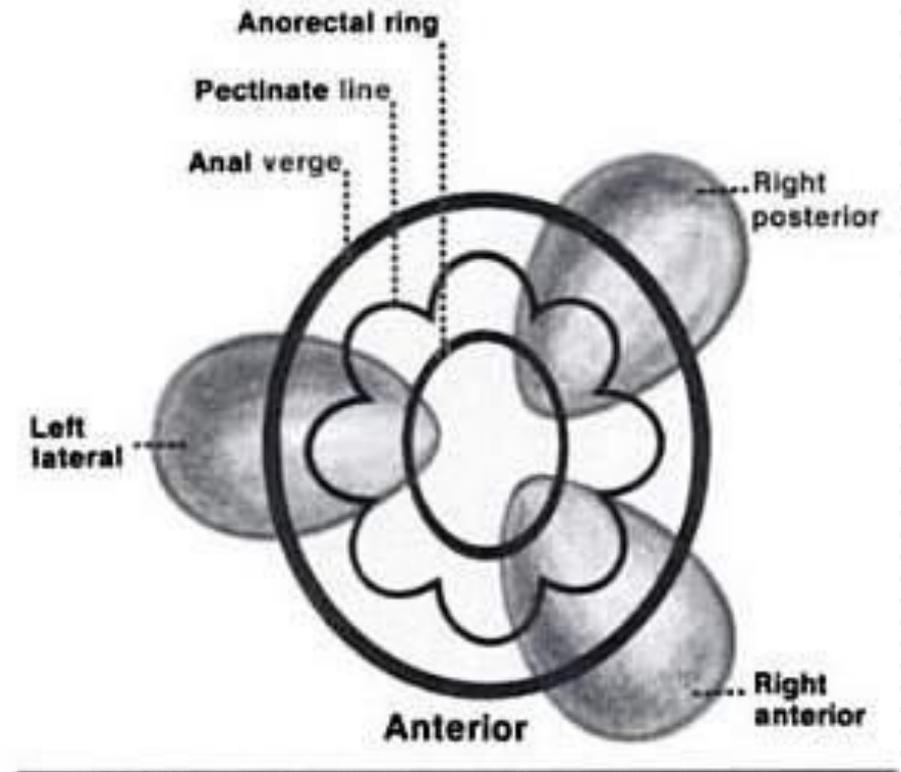
# Causes

- ▶ **Constipation**
  - ▶ **Diarrhea**
  - ▶ **Straining on stool**
  - ▶ **Pregnancy**
  - ▶ **Increased pelvic pressure (ascites, tumors)**
- 

- ▶ **Hemorrhoidal disease is no more common in patients with portal hypertension than in the normal population.**
- ▶ ***Rectal varices, however, may occur and may cause hemorrhage in these patients.***



- ▶ usually found in three constant positions:
- ▶ left lateral
- ▶ right anterior, and
- ▶ right posterior



# Classification

## Internal Hemorrhoids

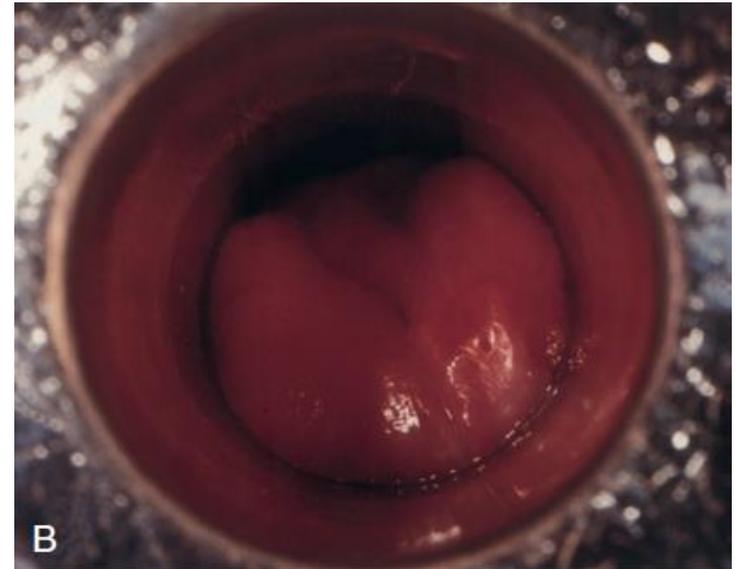
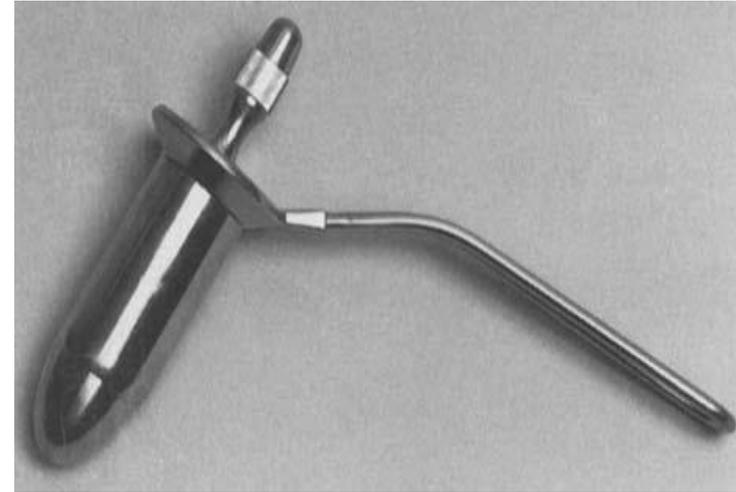
- ▶ Above the dentate lines
- ▶ Insensate mucosa
- ▶ Painless bleeding
- ▶ 4 grades according to level of prolapse

## External Hemorrhoids

- ▶ Below the dentate line
- ▶ Richly innervated anoderm
- ▶ Painful thrombosis
- ▶ No grading, either present or absent

# First-degree internal hemorrhoids

- ▶ **Do not prolapse**
- ▶ **Painless bleeding**
- ▶ **the anoscope must be used to visualize them**
- ▶ **Cannot be diagnosed with PR examination**



# Second Degree

- ▶ Prolapse with defecation and return spontaneously to their anatomic position



# Third Degree

- ▶ **prolapse with defecation and require manual reduction**



# Fourth Degree

- ▶ are not reducible and strangulated



# External Hemorrhoids



# Mixed Hemorrhoids

- ▶ are a combination of internal and external hemorrhoids



# Clinical Presentation

## ▶ Symptoms of hemorrhoidal protrusion and/or bleeding:

### Bleeding

- may be minimal, appearing only on toilet paper
- may occasionally be severe enough to cause anemia
- usually bright red, coats the stool (rather than being mixed with it)
- is painless, unless there is thrombosis, ulceration, or gangrene

### Prolapse

- Protruding mass
- Mucus discharge
- Poor hygiene
- Obstructed defecation

# Differential Dx



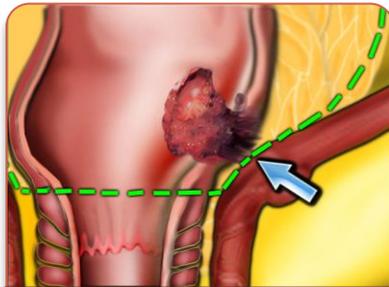
**Rectal  
mucosal  
prolapse**



**Hypertrophied  
anal papillae**



**Rectal  
Polyps**



**Carcinoma**



**Melanoma**



**intersphincteric  
abscess**

# Treatment

## ► Symptoms & Degree

### Asymptomatic hemorrhoids

- Best left alone
- Bulk-forming agents and avoidance of constipation

### First-degree

- Topical agents
- If bleeding : injection sclerotherapy or infrared coagulation
- Large size: banding

### Second-degree

- Banding

# Treatment

**Third degree**

- **Banding**

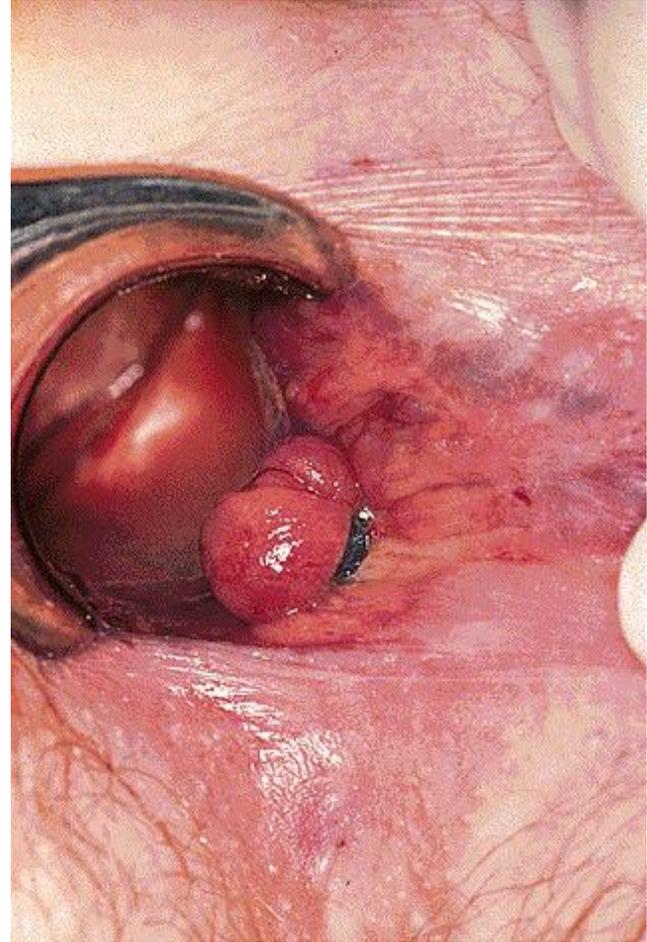
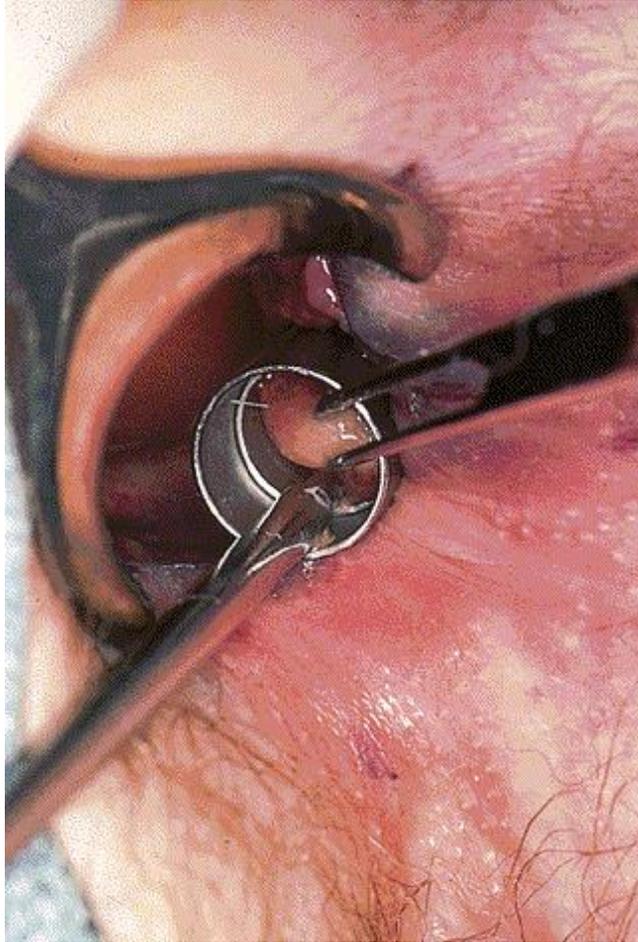
**Fourth degree**

- **Surgery**

**Thrombosed  
external**

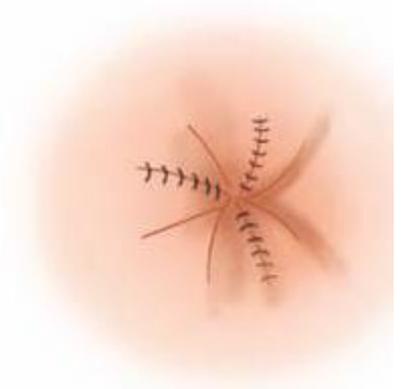
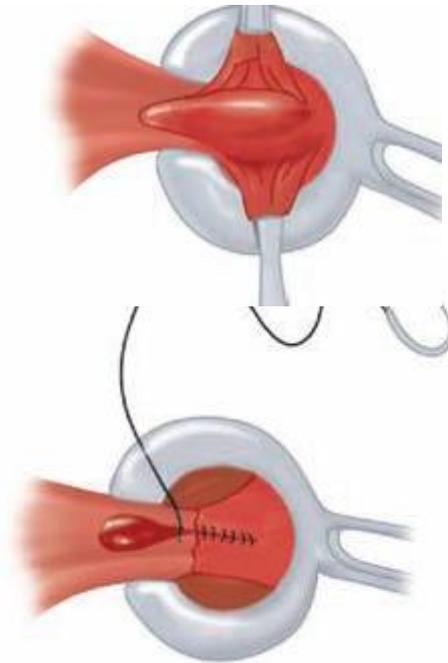
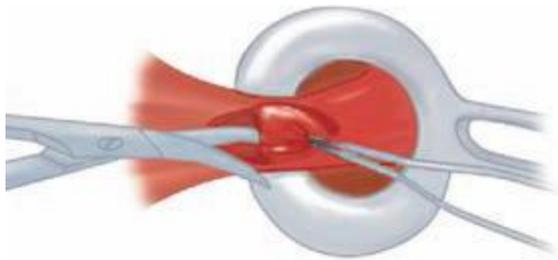
- **Early: Excision**
- **Later : Conservative**

# Banding



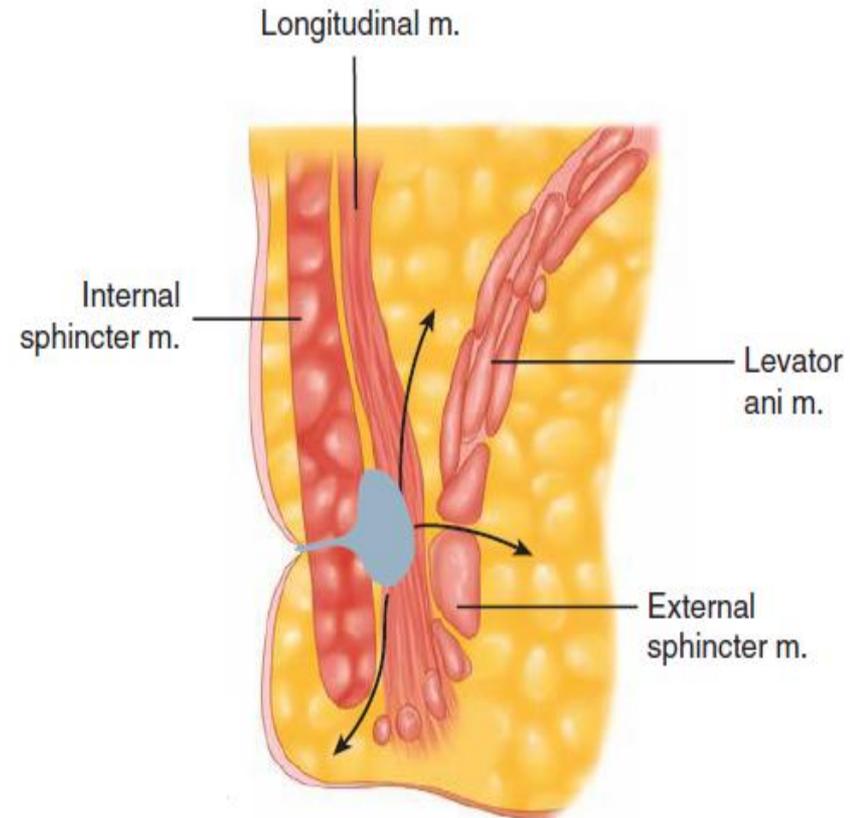
# Hemorrhoidectomy

- ▶ 4<sup>th</sup> degree hemorrhoids
- ▶ 3<sup>rd</sup> degree with a large external component
- ▶ Acute hemorrhoidal attack ( with gangrene, severe ulceration= emergency)

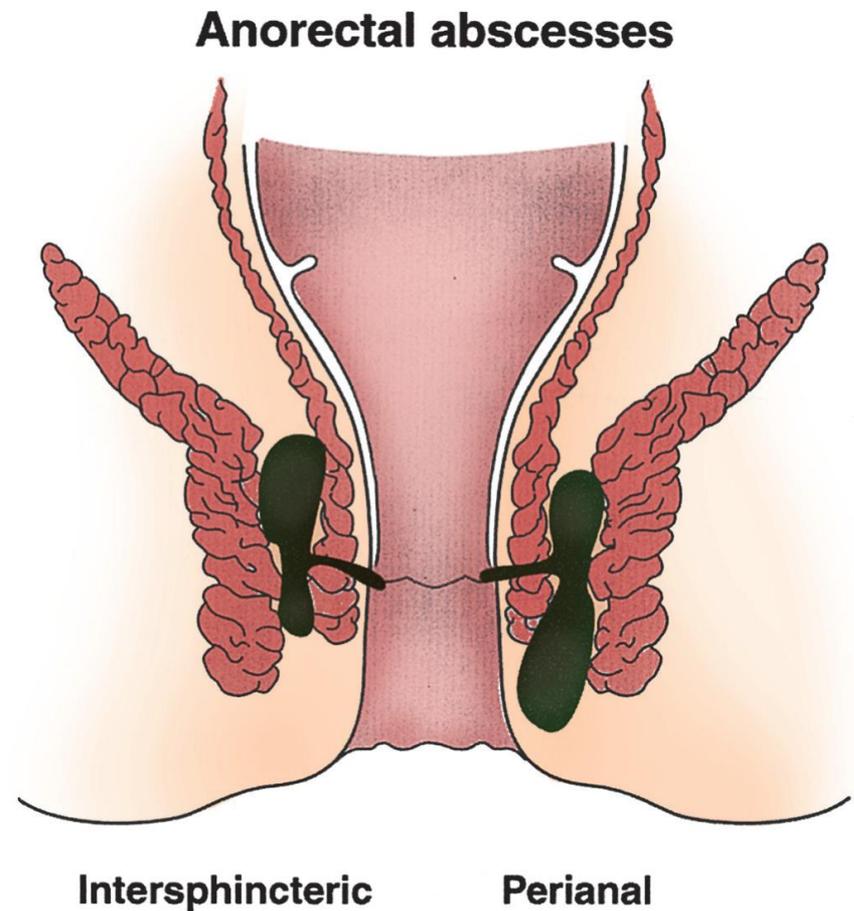


# Perianal Infections: Anorectal Abscesses

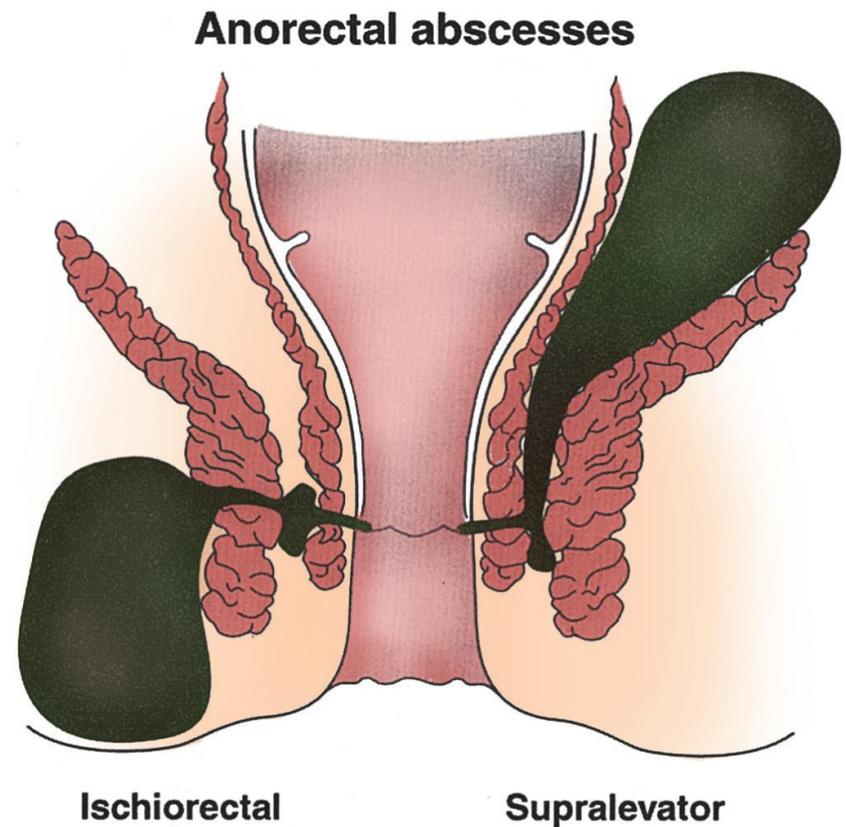
- ▶ Start with obstruction of the perianal glands that are located between the internal and external sphincters (intersphincteric space)
- ▶ These glands normally discharge their secretions at the level of the anal crypts, hence the term (cryptoglandular origin)



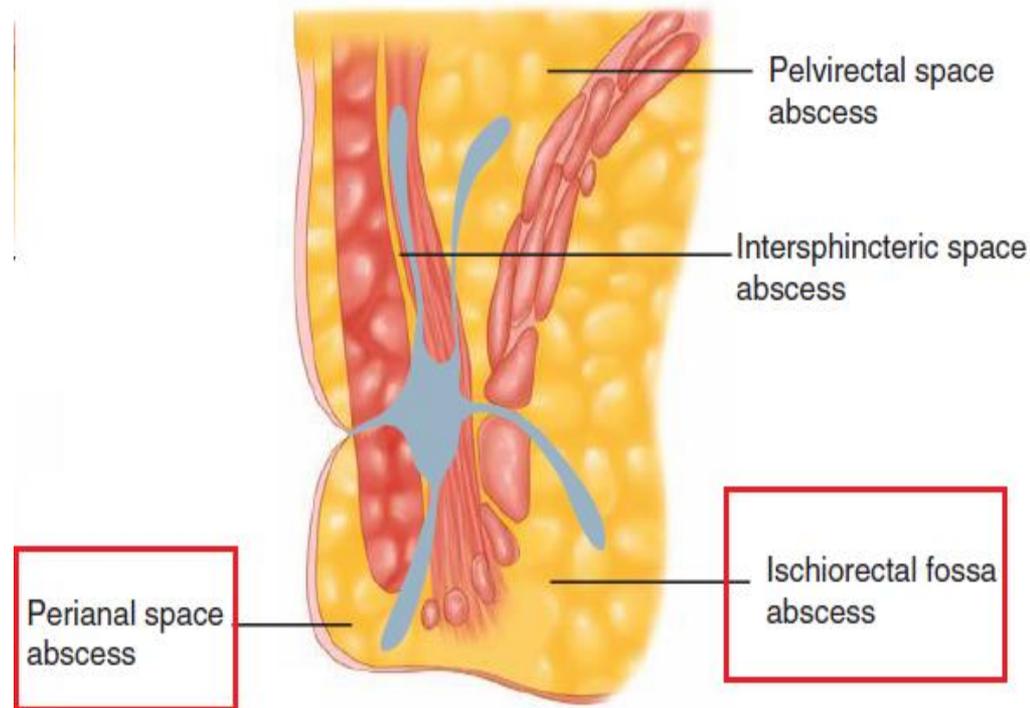
- ▶ **As the early intersphincteric abscess increases in size, it tends to spread along the planes of lesser resistance and to manifest fully as a perianal abscess**



- ▶ It may also manifest as an ischiorectal abscess in the ischiorectal fossa.
- ▶ If the infection spreads above the levators it becomes a supralelevator abscess.



- ▶ **Perianal and ischiorectal abscesses are the most common.**
- ▶ **They account for as many as 70% of perirectal abscesses.**



# Clinical Presentation

- ▶ **Perianal pain and swelling are readily apparent in perirectal abscesses ( except for early intersphincteric abscesses and supralevator abscesses).**
- ▶ **Spontaneous drainage of pus may occur.**

- ▶ **The cardinal signs of infection (pain, fever, redness, swelling, and loss of function) are usually present**



# Treatment

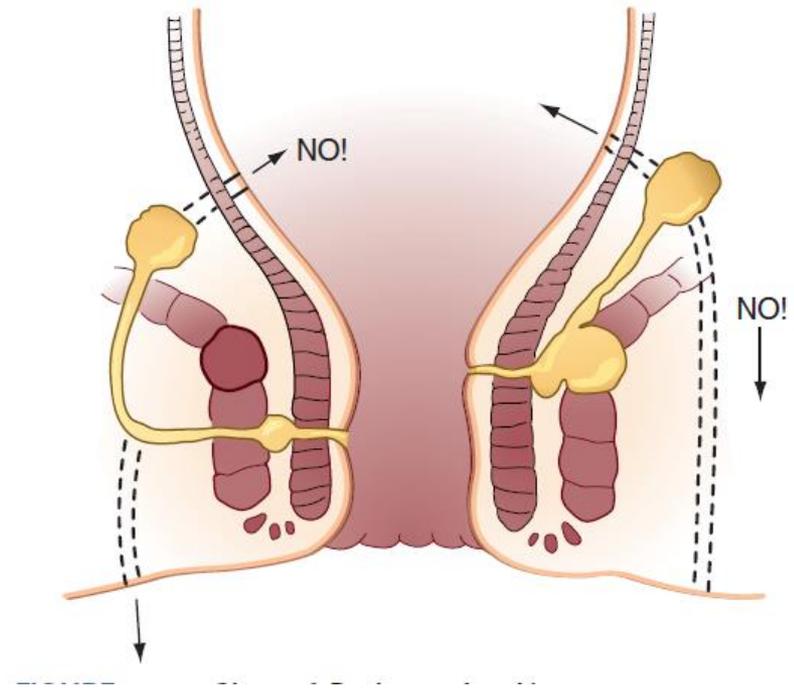
## Complete and thorough drainage of the abscess

**Inadequate drainage: ongoing pain, sepsis, and treatment failure**

**Antibiotics alone have no role in the primary treatment of an abscess.**

**Antibiotics may be used in conjunction with surgical incision and drainage in certain indications**

- ▶ **It is important that the location of the incision is appropriate to avoid creation of extrasphincteric or suprasphincteric fistulas**



# Indication for Antibiotics

- ▶ **Presence of cellulites beyond the abscess limits**
- ▶ **Systemic upset**
- ▶ **Patients who are immunocompromised:**
  - **diabetes**
  - **Leukemia**
  - **AIDS; or**
  - **Those who are undergoing chemotherapy**

# Fistula-in-Ano

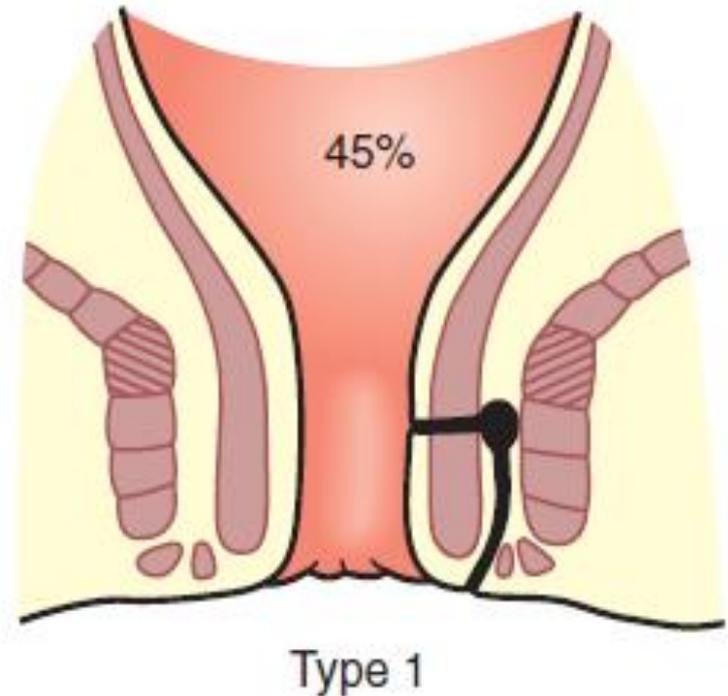
- ▶ **After drainage of a perirectal abscess, the patient has a 50% chance of having a chronic fistula-in-ano.**
- ▶ **It is an abnormal communication between the anus at the level of the dentate line and the perirectal skin, through the bed of the previous abscess.**

# Types

- ▶ **Fistulae are named in relation to the sphincter mechanism:**

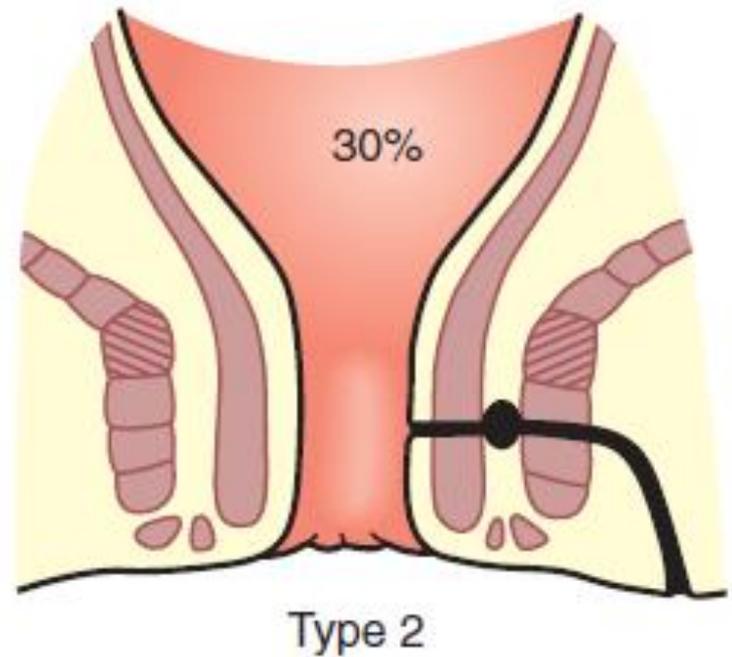
## Type 1

- ▶ **Intersphincteric**
- ▶ **Result of perianal abscesse**



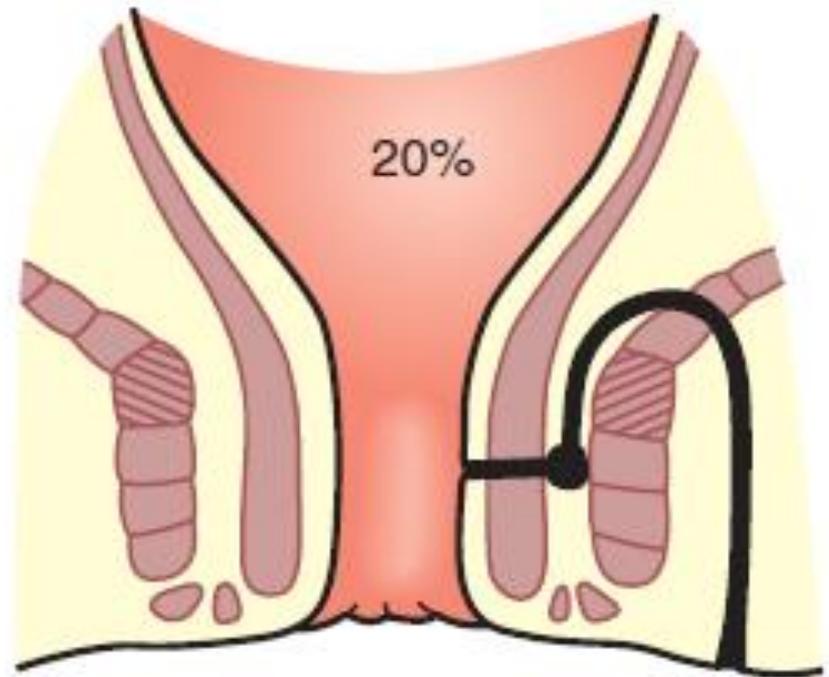
## Type 2

- ▶ **Trans-sphincteric**
- ▶ **Result of ischiorectal abscesses**



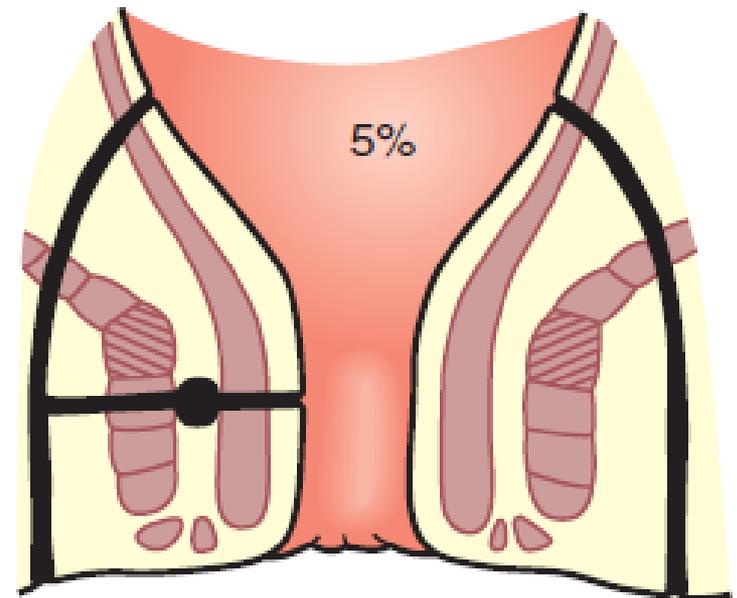
## Type 3

- ▶ **Suprasphincteric**
- ▶ **The result of supralelevator abscesses**



Type 3

- ▶ **Type 4**
- ▶ **Extrasphincteric**
- ▶ **bypass the anal canal and the sphincter mechanism and open high up in the rectum.**



Type 4

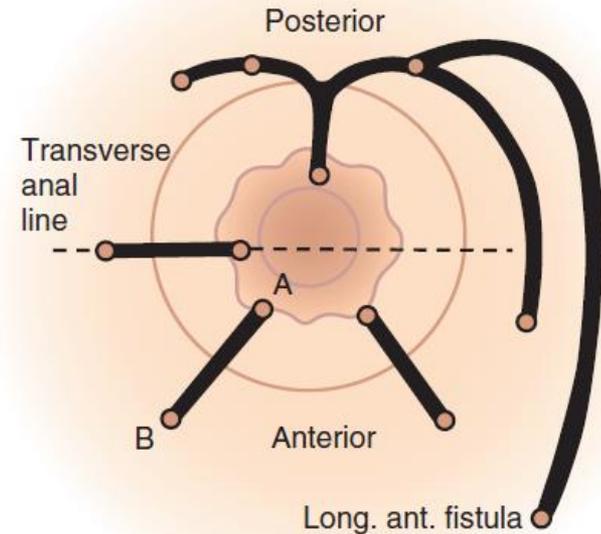
# Clinical Presentation

- ▶ **Fistulae manifest as chronic drainage of pus and sometimes stool from the skin opening.**
- ▶ **They rarely heal spontaneously**



# Goodsall's Rule

- ▶ For external openings located anterior to this imaginary line, the fistula tract usually goes radially straight into the anal crypt.
- ▶ For external openings located posterior to this imaginary line, the fistula tract generally curves around, and the internal opening is in the posterior midline position



# Treatment

- ▶ **Fistulotomy consists of unroofing the fistula tract, allowing the fistula to heal slowly by secondary intention.**
- ▶ **Judgment must be exercised to avoid cutting a large portion of the sphincter muscle, which may precipitate incontinence.**

# Anal Fissure

- ▶ **Painful linear tear in the lining of the anal canal, below the level of the dentate line**
  - ▶ **It is the most common cause of severe localized anorectal pain**
  - ▶ **The pain is dramatically increased during bowel movements and is often associated with streaks of blood in the stool**
- 

- ▶ **They are most often located posteriorly in both sexes, but women also have anterior anal fissures.**
- ▶ **They occur in the posteroanterior plane because pelvic muscular support is weakest along this axis.**



- ▶ **Ectopic lateral fissures suggest an unusual diagnosis (e.g., Crohn's disease, leukemia, sexually transmitted disease, malignancy).**



# Clinical Presentation

- ▶ **Secondary to local trauma, either from constipation or excessive diarrhea.**
  - ▶ **Pain typically starts with defecation and may persist from minutes to hours.**
  - ▶ **It is disproportionate to the size of the lesion.**
  - ▶ **If bleeding is present: minimal and bright red.**
- 

# Physical Examination

- ▶ **Gentle retraction of the buttocks will reveal the tear at the anal verge.**
- ▶ **Rectal examination is unnecessary and usually associated with severe pain and significant sphincter spasm.**

**In cases of chronic recurrent anal fissures, the classic triad of**

- ▶ **an external skin tag,**
- ▶ **a fissure exposing the internal sphincter fibers,**
- ▶ **and a hypertrophied anal papilla at the level of the dentate line is pathognomonic.**



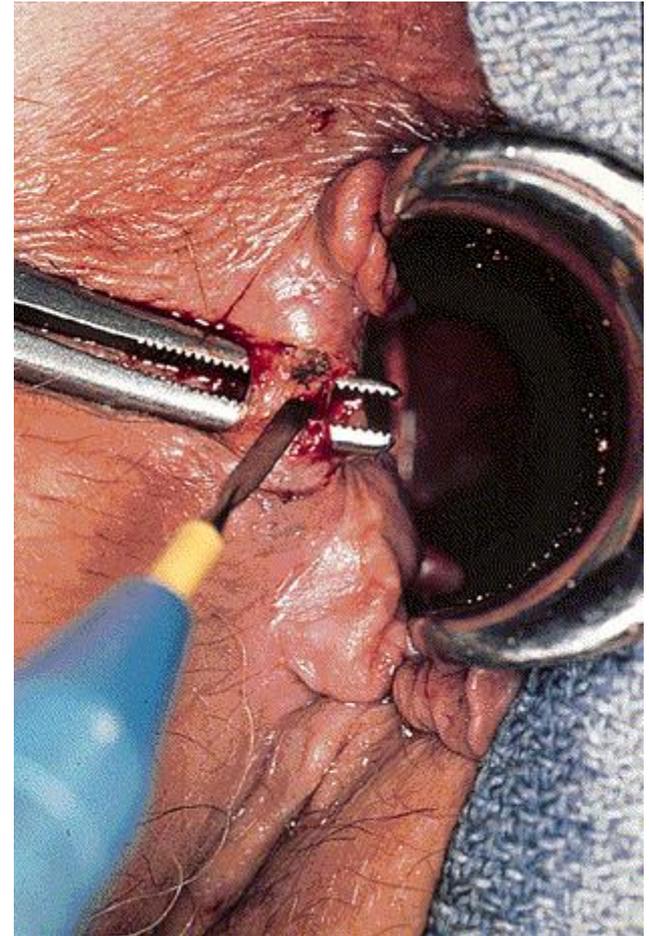
# Treatment

- ▶ **Treatment is based on the duration and severity of the symptoms.**
- ▶ **Acute anal fissures usually respond to conservative treatment:**
  - **Avoidance of diarrhea or constipation**
  - **Bulk laxatives**
  - **Mild nonnarcotic analgesics**
  - **Sitz baths**
  - **Topical agents (procainamide, nitroglycerin)**
  - **Botox injection.**

# Surgical Treatment

## Indications:

- ▶ **Chronic fissure**
- ▶ **Failure of conservative treatment**
- ❖ **The operation of choice is partial lateral internal sphincterotomy**



# Anal Malignancy

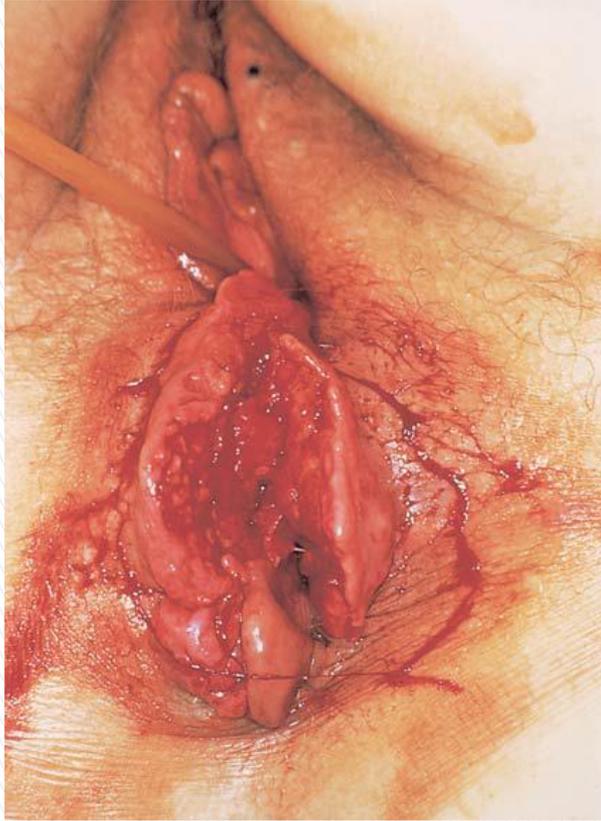
- ▶ **Rare: only 3% to 4% of all anorectal carcinomas**
- ▶ **Two types of anal cancers:**

## Epidermoid carcinoma

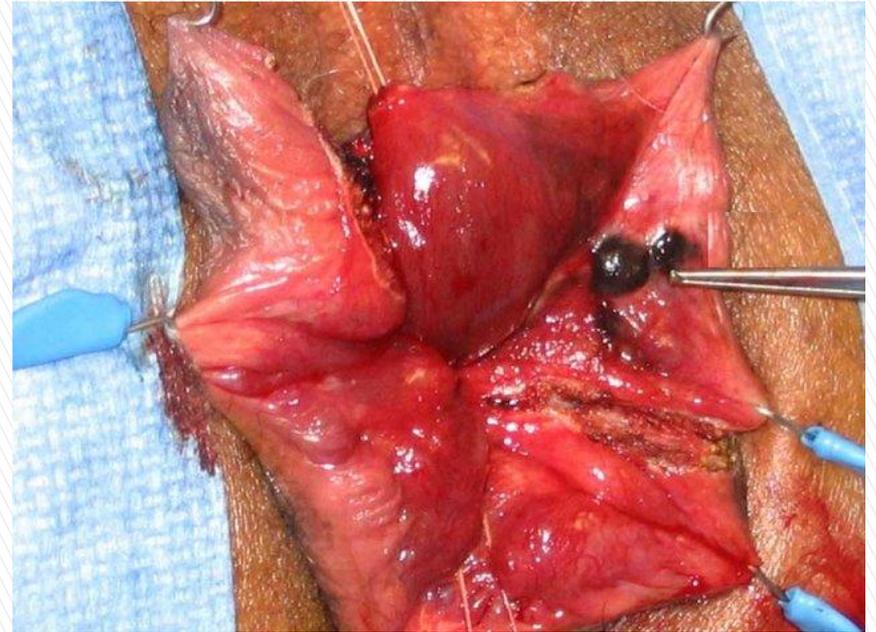
- **A generic type**
- **includes squamous cell, basaloid, cloacogenic, mucoepidermoid, and transitional carcinomas**

## Malignant melanoma

- **3<sup>rd</sup> common site after skin and eyes**
- **Can present without pigmentation (amelanotic melanoma)**



**Epidermoid carcinoma**



**Malignant melanoma**

# Clinical Presentation

- ▶ **Pain, bleeding, or a lump**
- ▶ **Diagnostic delays: patient and/or physician neglect**
- ▶ **Melanoma: inguinal lymph nodes metastases**

# Treatment

## Epidermoid cancers

- ▶ **Combined modality chemotherapy and radiation**
- ▶ **Pelvic radiation with infusion of 5-FU and mitomycin C.**
- ▶ **5-year survival rates:82% to 87%**
- ▶ **Surgery (APR) is indicated for residual tumor**

# Treatment

- ▶ **Prophylactic inguinal node dissection is not recommended unless clinically palpable nodes are present**
- ▶ **Synchronous inguinal node metastasis is an ominous sign, and survival rates are poor.**

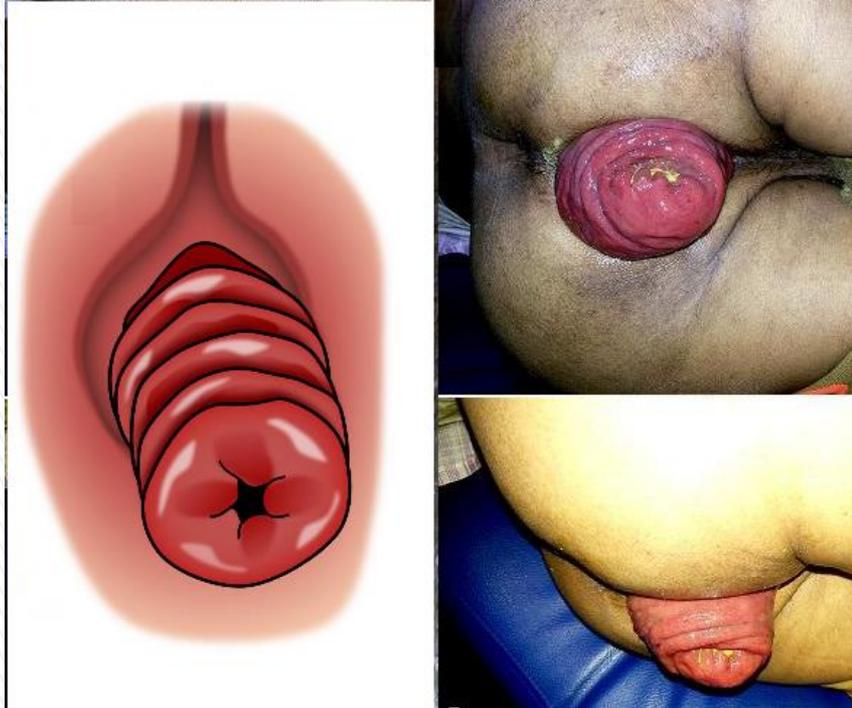
# Treatment for Malignant Melanoma

- ▶ **Prognosis is dismal, regardless of the treatment**
- ▶ **For good-risk patients, APR is a reasonable option**

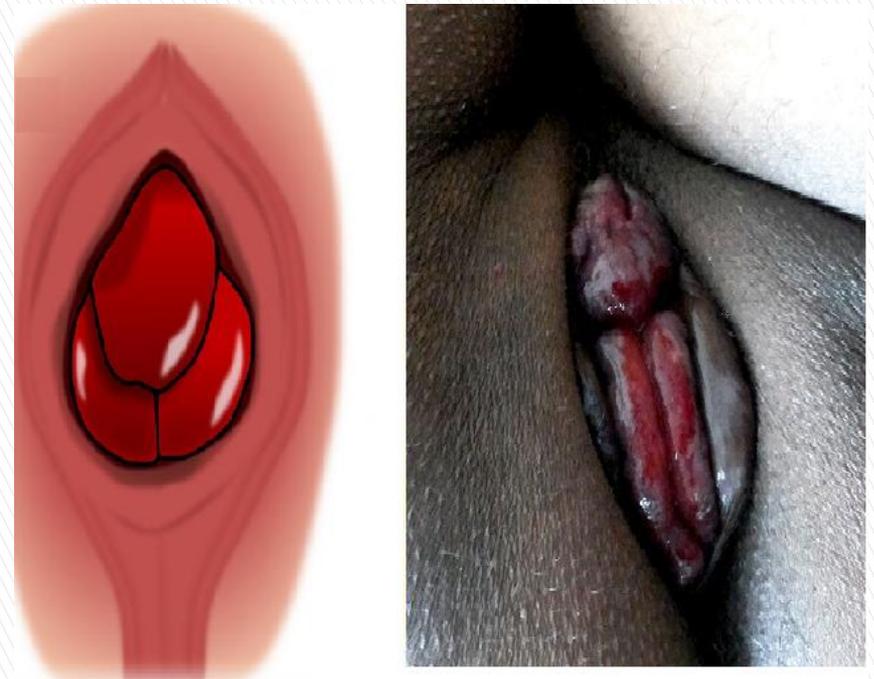
# Rectal Prolapse (Procidentia)

- ▶ **Intussusception of a full-thickness portion of the rectum through the anal opening**
- ▶ **Most commonly in thin, asthenic women**
- ▶ **Must be distinguished from mucosal prolapse, which is eversion of 2 to 3 cm of rectal mucosa through the anal opening**

# Rectal Vs Hemorrhoidal



**Rectal Prolapse**



**Mucosal Prolapse**

# Clinical Presentation

- ▶ **Rectal pain or pressure**
  - ▶ **Mild bleeding**
  - ▶ **Incontinence**
  - ▶ **Mucous discharge, and a wet anus**
  - ▶ **The prolapse commonly occurs after each bowel movement and must be manually reduced.**
- 

# Treatment

- ▶ **Sigmoid resection (redundant bowel) with rectopexy (suturing the bowel wall to the presacral fascia to immobilize it)**

# THANK YOU

