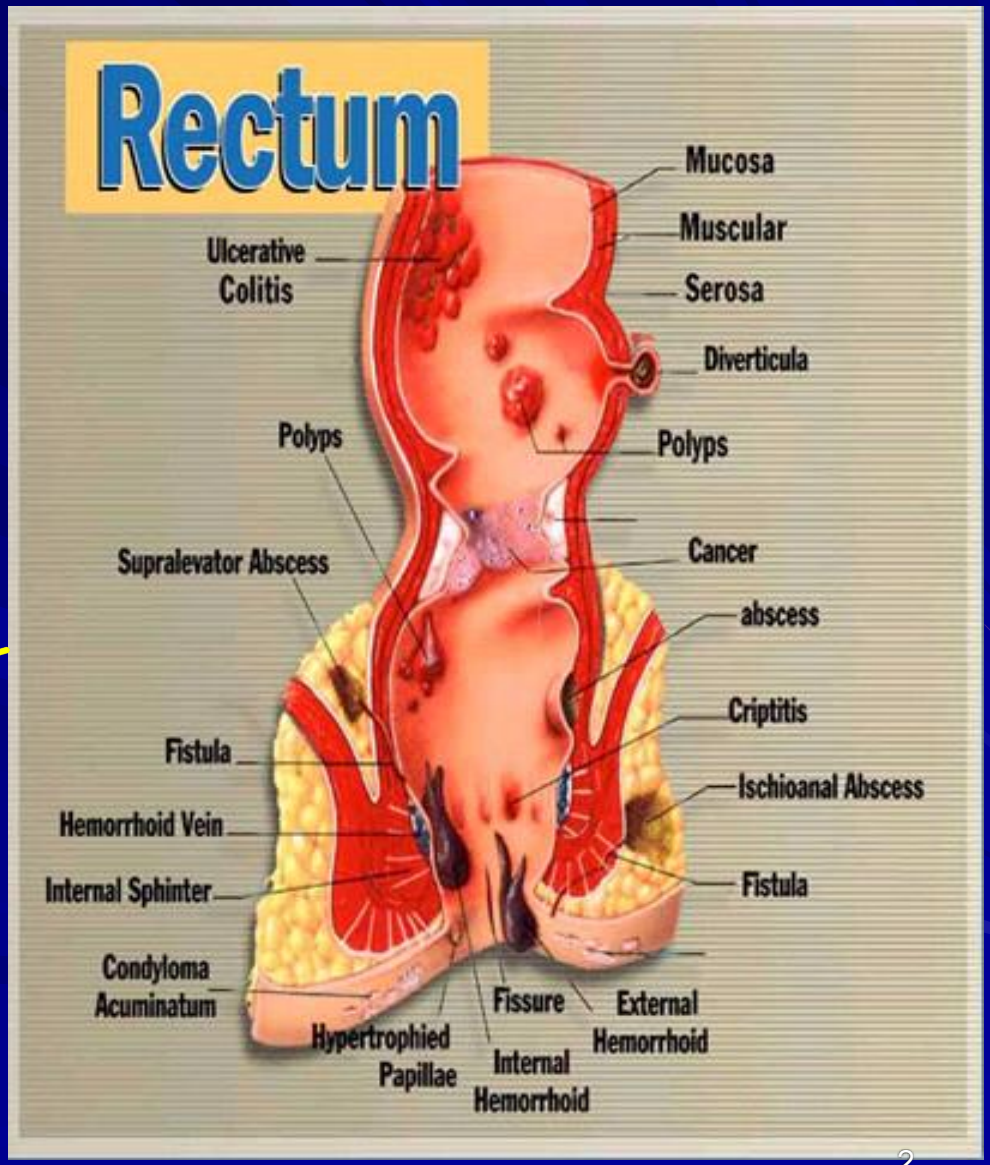
Anorectal disorders

So wide common disorders...

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Topics

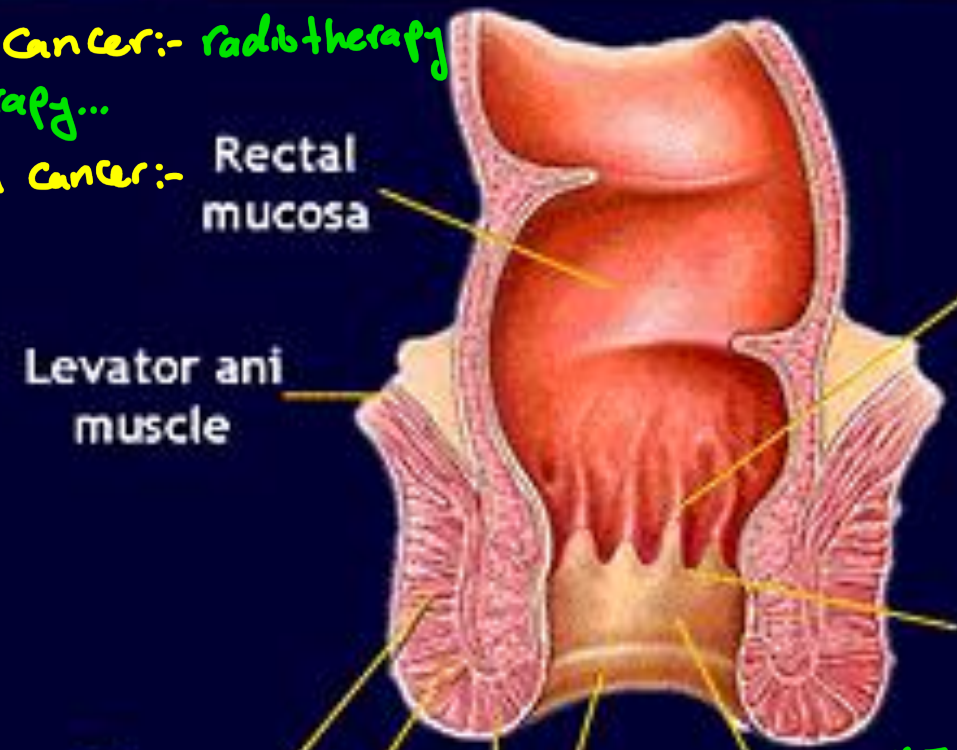
- Anatomy.
- Anal Fissure.
- Anal Fistula
- Anal Abscess
- Hemorrhoids.
- Anal Cancer.



* Anal canal length :- 3-4cm [Anatomical] or 4-5cm [surgical]
* Anatomical Anal canal below the dentate line...
* above the dentate line called transitional zone...

Anal Anatomy

* ttt of anal cancer :- radiotherapy or chemotherapy...
* ttt of rectal cancer :- surgical...

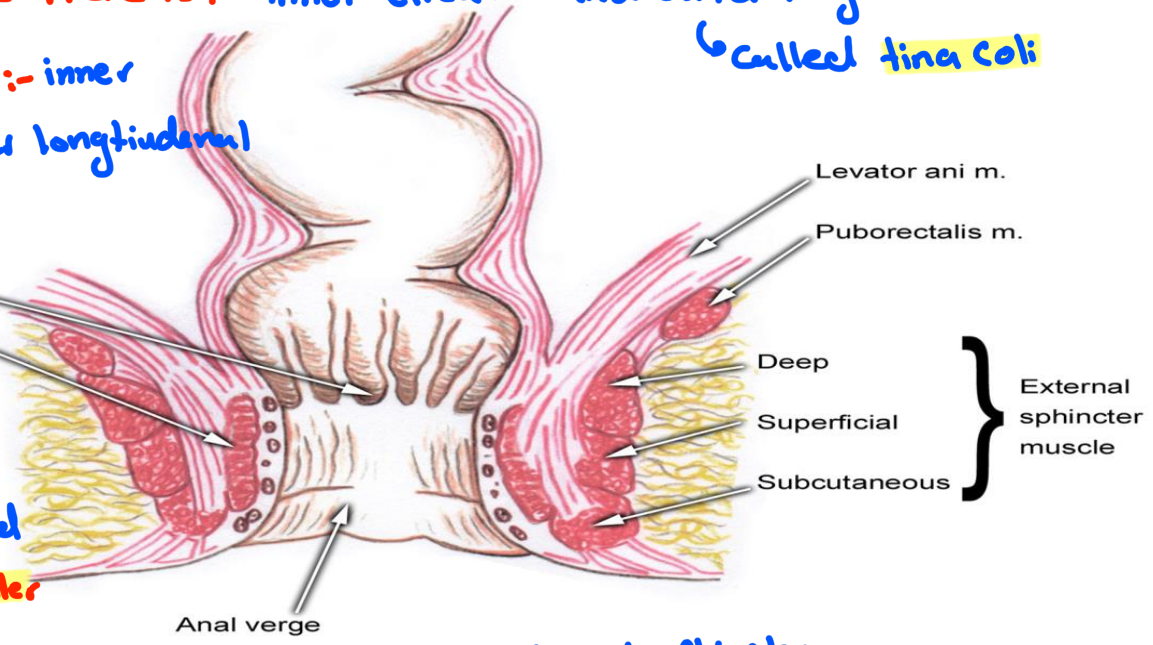


* In anal canal there is glands called anal glands → for lubrication → ↓ dr_ [in defecation]...
* There is 8-10 anal glands opened in the dentate line, presented in the inter sphencteric groove...

Ryan DP et al. New Engl J Med 2000;342:792-800.
Permission to reprint requested from Massachusetts Medical Society.

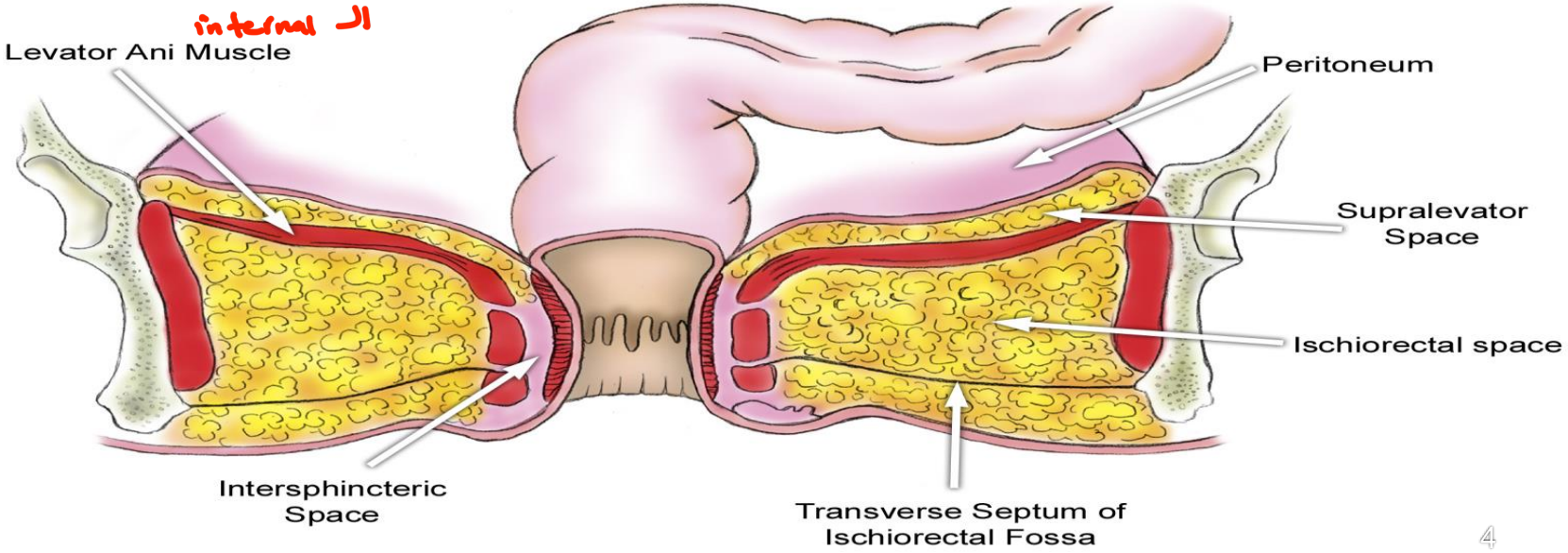
* In S.C and TC there is :- inner circular and outer longtiudenal muscles...
↳ called tinea coli

* The Rectum has :- inner circular and outer longtiudenal muscles...



→ The inner circular muscle begin to be hypertrophid so called internal anal sphincter

→ The external anal sphincter longer than internal anal sphincter...
↳ نازل 1cm لتحت الـ internal



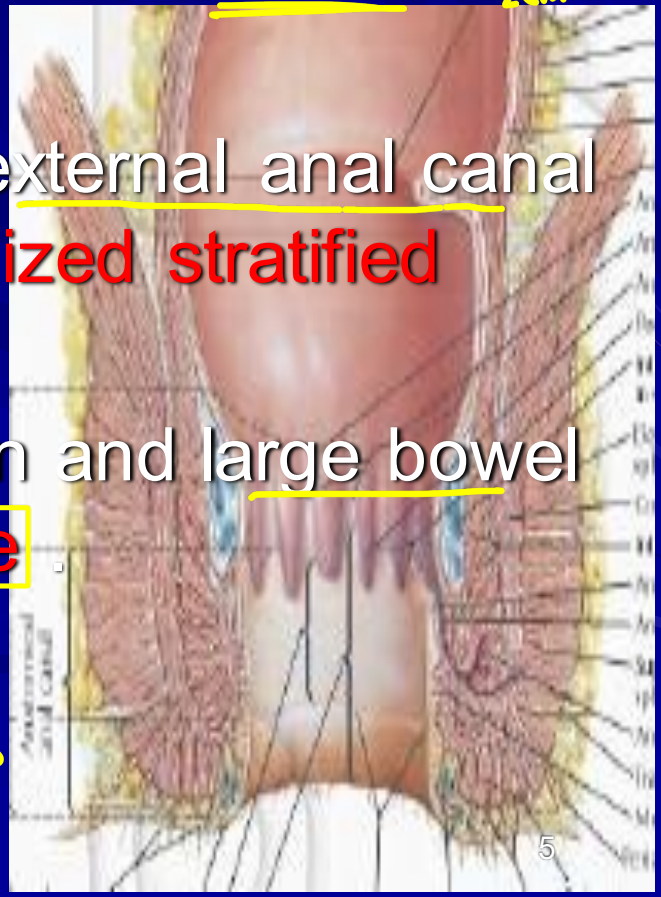
→ The Sigmoid colon end at:- 3rd Sacral bone...
then begin the Rectum
[straight 12cm in length]

Anatomy

- **Surgical Anal canal** is about 4cm long.(shorter in females)
  (↳ terminal part of LI begin at the anorectal junction...
  ↳ Downward and Backward..
  ↳ infront and below the tip of coccyx by 2cm
- It extends from the anal verge to the anorectal junction. 2-3cm below the tip of the coccyx..
- Pecten is a hairless part of the external anal canal that exposed by traction (keratinized stratified squamous epithelium)
  ← below the dentate line
- The junction between the Pecten and large bowel mucosa is known as dentate line .

في 1-2cm بعتبر Anatomical Anal Canal وبتبدأ wavy line ←
Surgical Anal Canal...

* The Ant. wall slightly shorter than post. wall



Cont ..

* The rectum or colon lined by :- simple Columner epith.
* The anal canal lined by :- stratified sq. epith. [non keratinized]

* Keratinized → origin from skin...
* Keratinized cancer as:-
  - valva cancer.
  - sq. cell carcinoma...
* non-keratinized cancer as:
  - esophageal cancer
  - anal cancer...

Better prognosis

- Above dentate line there is transitional zone extends (from 1cm to 2cm) having sensitive modified non-keratinized squamous epithelium.

sq. epith.

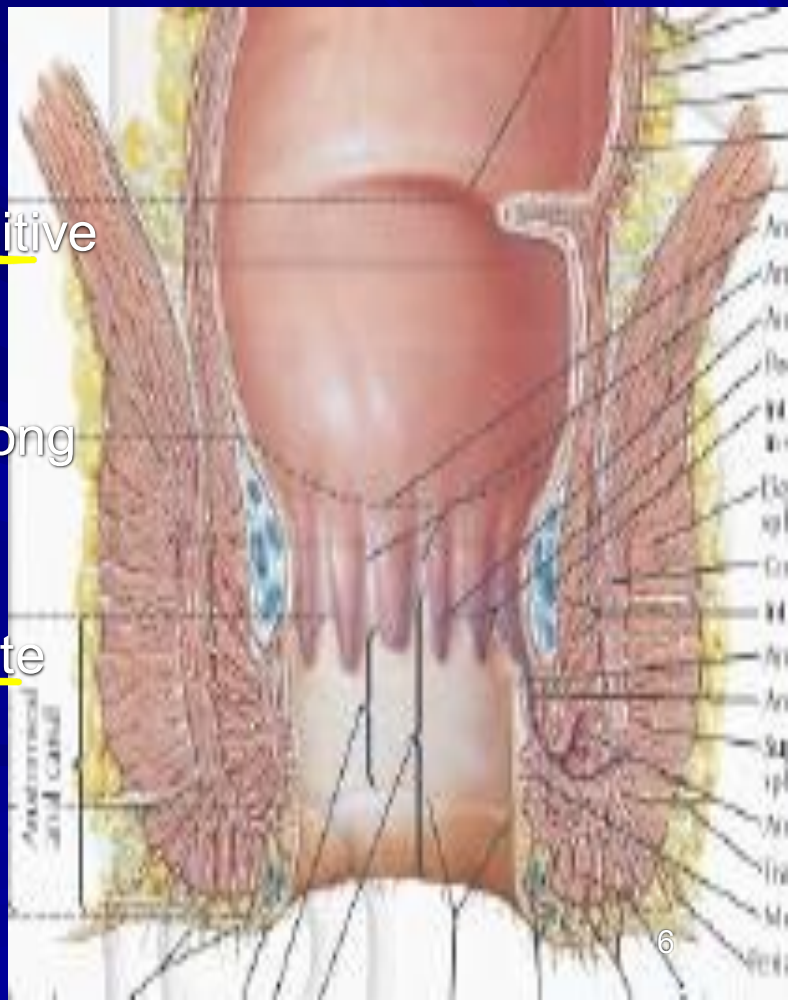
between the stratified sq. epith and cuboidal epith and simple columner...

- Above transitional zone there is insensitive large bowel mucosa (columnar epithelium).
- **Anatomical anal canal** is about 3cm long .

the area where the anoderm [end of the anal canal] met the perianal skin...

- It extends from anal verge to the dentate line. [Anatomical anal canal]

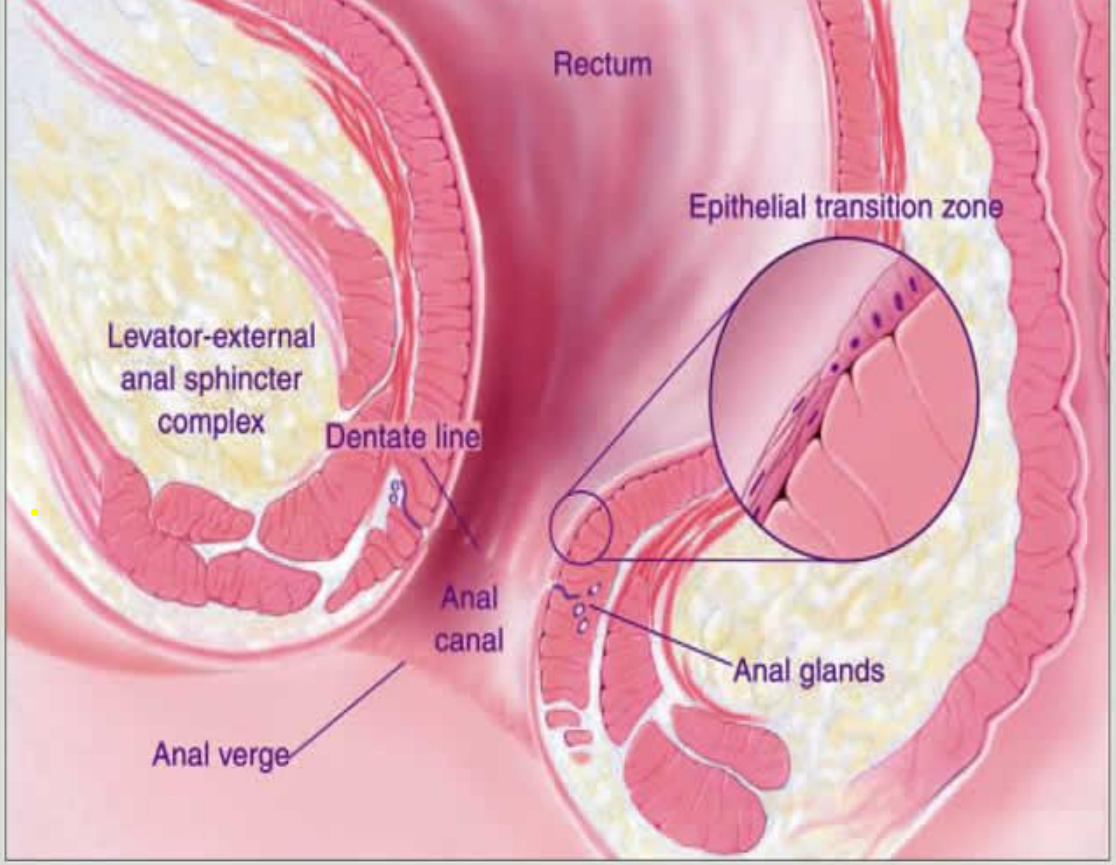
* The anal glands it's the cause of the anal abcesses [anal suppuration]...
  → presented in the intersphincteric groove...



* The anal Cancer:-
- marginal tumor... ← anal verge ← ... 5cm around the anal canal [25%] → we can see it...
- anal canal tumor... [75%] - we can't see it...

* 80% of anal cancer are sq. cell carcinoma...

* 10% of anal cancer are adeno-carcinoma... → if the malignant melanoma occur in the anal canal has very Bad prognosis... [aggressive]



The anorectal area—the terminal portion of the GI tract—includes the rectum and the anal canal. The rectum is the last 12 cm above the anal verge. The anal canal extends from the anal verge to the proximal level of the levator-external anal sphincter complex. The dentate line is approximately 2 cm from the anal verge and is a place of transition from columnar epithelium to squamous epithelium. Between these layers is transitional epithelium. The anal glands—branched, straight tubular glands with ducts lined with stratified columnar epithelium—empty into the anal canal at the base of the anal columns. A clear sense of anorectal anatomy is fundamental to the evaluation of patients with anorectal disease.

Types of Anal fistula:
1- Sub mucous...
2- inter sphincteric... ← most type of fistula [70-80%] ← gland ... inter sphincteric...
3- trans sphincteric...
4- supra sphincteric...
5- extra sphincteric...

* Crypto glandular theory :- infection in the anal glands forming abcesses... → most site inter sphincteric [between 2 sphincter] → crypto glandular theory...
* The most important cause of perianal Fistula :- 95% due to perianal abcesses... → crypto glandular theory...
5% rare causes due to → CD - HIV - UC - homosexual pt - radiation - TB
inflammation of apocrine sweat glands → hydra adinitis suppurativa [HS]

* There is 4 Types of malignant melanoma in the skin:- أكثر من MCC [Common in white group who exposed to UV sun light]...
1- superficial spreading melanoma... [mc]
2- nodular lentigo maligna in the face..
3- Acral lentiginous in hands and feet...
4- nodular melanoma..

Cont ..

- **Muscle layers** :
- **Internal sphincter** is a condensation of circular smooth muscle of the rectum and is continuous with circular muscle of the whole GI tract. (autonomic nervous system).
- It maintains tone and resting pressure within anal canal (anal continence).

responsible for the tone of the Anal canal [80%] But the remaining 20% of the tone controlled by the hemorrhoid [enlarged the fibro-vascular cushing and obst. the anal canal]

[white color]

sympathetic / parasympathetic

we don't control the internal anal sphincter..

lateral subcutaneous partial internal sphincterectomy ..: تستخدم في علاج Anal fissure بتقطع جزء من internal anal sphincter

Best tt for Anal fissure..

..using in continous يعني في external anal sphincter, لما تستخدمها

* Types of anal incontinons:- Type I :- for fleuts... Type III :- for hard stool...
Type II :- for liquid stool...

Cont ..

- **External sphincter** consist of ending of longitudinal muscle of the rectum at the anus as series of fibrous bands which radiate to the perianal skin (somatic nerves). — Striated Muscle [Red in color] for control the defecation processes... [squeeze pressure]... — we can control it...
- The circular muscle of the external sphincter consists of lower part of levator ani, known as the puborectalis sling. — bind with the deep part of Ext. anal sph. — part of levator ani muscle..

* Has 3 parts:- 1- sub Cutaneous. — or sub mucous..
2- Superficial...
3- deep... — Blint with elevator ani [Pelvic floor muscle]...
} hypertrophy of the outer longtichunal muscle..
tip of the coccyx ... ←

... deep part ... superficial part ... sub Cutaneous part ...

Cont ..

* The Aorta end at level L3-L4 just below and to the lt of the umblicus and become common iliac A the A. of the pelvis [Ant. and post] -: internal ← below the inguinal ligament becom ← external ← femoral Artery..

* The Ant. part of internal iliac Artery give → middle and inferior rectal A...

sup. rectal A. [Continuation of IMA from Aorta at L3]...
middle rectal A.] → from Ant. part of internal iliac A...
inferior rectal A.

- **Blood supply.**

-The anal area receives an intercommunicating blood supply from superior, middle, inferior rectal arteries

- Venous drainage goes mainly to superior rectal vein then portal system, but from anal sphincter and below, the drainage goes towards systemic circulation .

Cont ..

- **Lymphatic drainage**
- **Above dentate line**

To inferior mesenteric and internal iliac nodes

- **Below dentate line**

To superficial inguinal nodes

→ to the sup rectal LN → IM LN → para aortic LN
→ to the para iliac vesseles LN [iliac LN]
→ to the inguinal LN ...

→ any pt has anal problem we should exam the inguinal LN
→ if it tender indicate inflammation as:-perianal suppuration [abcesses..]
→ if it non tender but large indicate anal canal or lower 1/3 of rectum tumor...

Common symptoms of ano-rectal disorders

- bleeding — Fresh Blood we should exclude the rectal cancer..
- anal pain
- itch
- faecal leakage / hygiene problems
  - due to incontinance...
  - early stage of incontinance...
- swelling
- discharge

* most important 3 causes of Bad smell of the mouth:-
  1- teeth problem...
  2- sinus problem...[ENT]
  3- regurge...[need gastroscope]

Examination

- Abdomen
  - maybe the pt has portal HTN and liver cirrhosis lead to 2ry piles...
- groins (lymph nodes)
- dermatoses
  - surrounding anal skin [5cm external to the anal verge]...

Ano-rectal examination

- External appearance
  - -skin condition
  - -swellings
  - -soiling / discharge
  - -perineal descent
  - -scars

thrombose complicated pile

indicate sphinct. defect..

ask about previous hx of anal surgery...

especially the anal fistula scar appear ... بتيجي ع hemorrhoid scar ما

- Digital examination [PR exam]
  - -sphincter tone
  - -squeeze pressure
  - -cervix / prostate
  - -coccyx
  - -retrorectal space
  - -rectocoele

ع in F — ع in M — presented Ant. in PR...

and Sacrum — post.

common, occur in Female..

لـ التصنيف

* Anterior wall of the anus and rectum is the post. wall of the vagina [rectocoele]

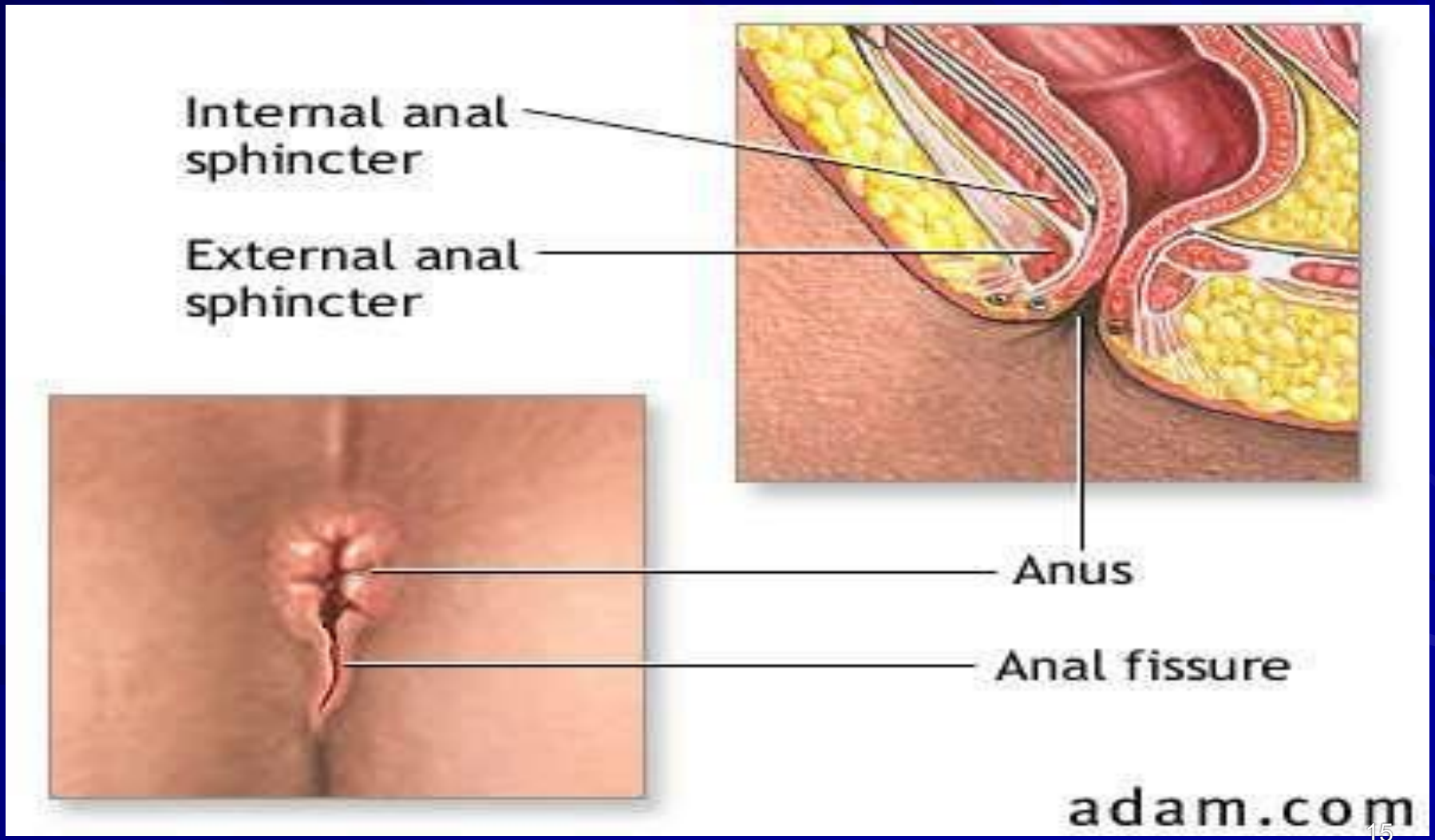
[the rectocoele surgery done from → Rectum [surgon] → Better than vaginal method..
→ vagina [ولادة، تناسلية]

لازم ألـ if I deceide to do endoscopy + extremely painfull acute fissure ما بعرفش ← PR examination...

anal fissure

L M:F [1:1]

→ improved with medical ttt
- acute:- severe pain with traction so we can't see the fissure [the duration is weeks to month]
- chronic:- No pain with traction so we can see the fissure need surgical ttt [duration > 1 month]... 90%



* The ulcer has → Base [what we move] if it fixed indicate malignancy...
→ Floor [what we can see]

anal fissure

tear in the mucosa involving the pectin...

Hypertrophied anal papilla [seen by proctoscope]... / skin tag [external]

- This is a tear involving the pectin .
- Posterior > Anterior (Commonest site of fissure)
- Acute, chronic. (as in pregnancy...)
- Sentinle skin tag → chronic fissure.
- More than 6 weeks → chronic [need surgical #].
- IAS visualized
- Keratinisation
- Simple, complex

hygiene problem / itching





* chronic fissure has:- skin tag [ext.] and hypertrophied anal papilla [inter.]
* once we can see the internal sphincter [white color] in the floor indicate :- chronic fissure.

* The fissure 90% post. mid line - 10% anterior to midline in Males
* The fissure 70% post. mid line - 30% ant. mid line in females..
  └ due to child birth traumea...

etiology

* if the fissure not Ant or post. to the mid line indicate IBD or HIV or homo sexual..

- Constipation.
- Hyperactive sphincter
- IBD "Crohn's disease" → lead to abdominal pain- diarrhea- BPR- wt loss.
  └ charachtarized by multiple fissures + not severe pain...
  * 50% of CD pt has anal involvment [may preceed the GI complran]...

SYMPTOMS:

- Severe Pain. [out of proportion] come after the bowel motion...
- Bleeding on and after defecation [pain after defecation due to spasm of the sphincter]...

* The mc site of anal fissure is post. mid line why?!
  1- due to the angle of hard stool traumea..
  2- poorest BS area so may lead to Ischemic ulcer → Bad healing..

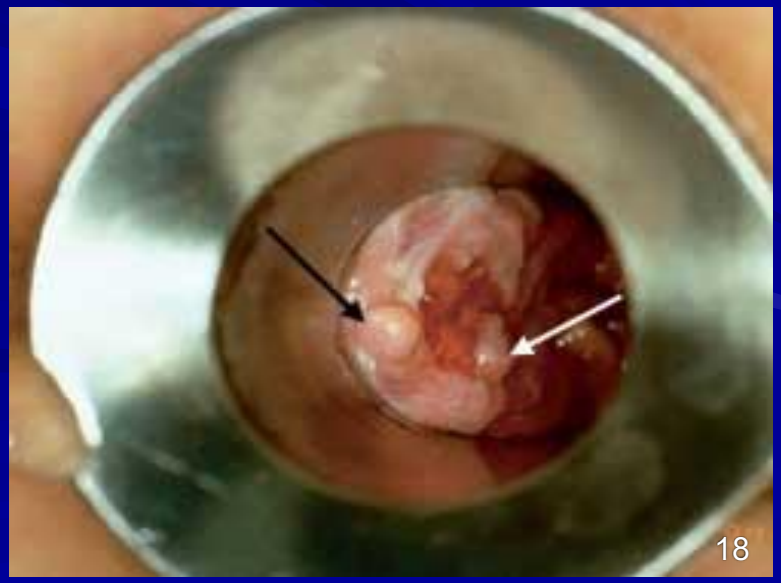
on examination!

- Tightly closed puckered anus

.

- By gently parting the anal margin the lower end of the fissure can be seen.
- Digital examination is so painful.
- Proctology is impossible unless under anesthesia
- Skin tag





Anal fissure management

- stool softeners — as laxatives or liquids...
- dietary advice — → to relieve the constipation...
- topical LA — before defecation; → local anasthesia-

→ the medical tt :- Ca^{+2} channel Blocker glucerine tri nitrate [to relax the anal sphincter] ... for acute fissure

- chemical sphincterotomy
  - -topical
  - -injected
- surgical sphincterotomy

Anal fissure surgery

- anal stretch
- lateral sphincterotomy
- chemical sphincterotomy
  - topical
  - injectable

may done in office under local anesthesia...
may lead to soiling but improved within 3months..

partial - sub cutaneous...

To The Best modality...

relieve the internal anal sph. spasm with rapid healing..
lead to ↑BS via ↓spasm...

* In Anal fissure → the Constipation lead to fissure...
→ the Anal fissure lead to constipation...

...fissure لازم نعالج الـ chronic constipation عشان طرح يتحسن لما نعالج الـ

...constipation يتحسن طرح الـ fissure لازم نعالج الـ constipation عشان نحل الـ

Anal fissure treatment

- GTN glucose trinitrate.
  - lead to BV dilatation so may lead to headache – hypotension so to avoid it advise the pt to use small amount of these drugs...
- Diltiazem

40-50% successful
s/e: severe headaches

60-80% successful
s/e: nil generally

- Botox relax the anal sphincter.
  - may lead to leakage and soiling [ext. sph. distruction]...
- Sphincterotomy
  - Best method of tt

60-90% successful + has dramatic effect
s/e transient minor leakage !!

98% successful
s/e 2% passive leakage

السبب الأكثر شيوعاً لخراج بالأنس Anal intersphincteric fistula يتكون - وهو عبارة عن تجمع صديدي
Ecoli: [gram-ve Bacilli]...
(has Bad odor...

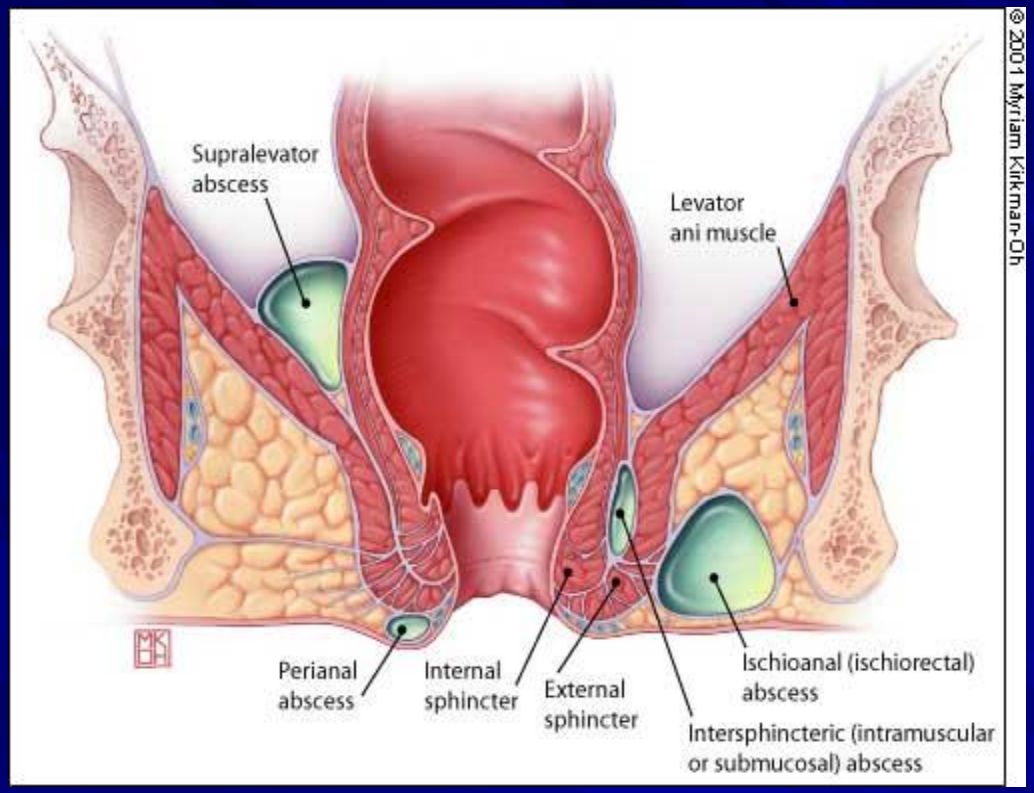
very common we should drian it...
[if we dont drain it will become fistula]...

anal abscess and fistula

ألم مستمر Continous - throwbing pain
defecation...



Ano-rectal sepsis



Sx: perineal pain (throbbing), possible prior history of similar

Exam: tender fluctuant mass +/- discharge, may be toxic

Beware: diabetics (risk of rapidly progressive infection & Fournier's gangrene)

↳ we should do rapid drainage..

skin necrosis (possible Fournier's gangrene)

↳ due to flesh eating Bacteria

لذلك لازم نشيل كل الانسجة الميتة

anal spasm & throbbing pain (inter-sphincteric abscess)

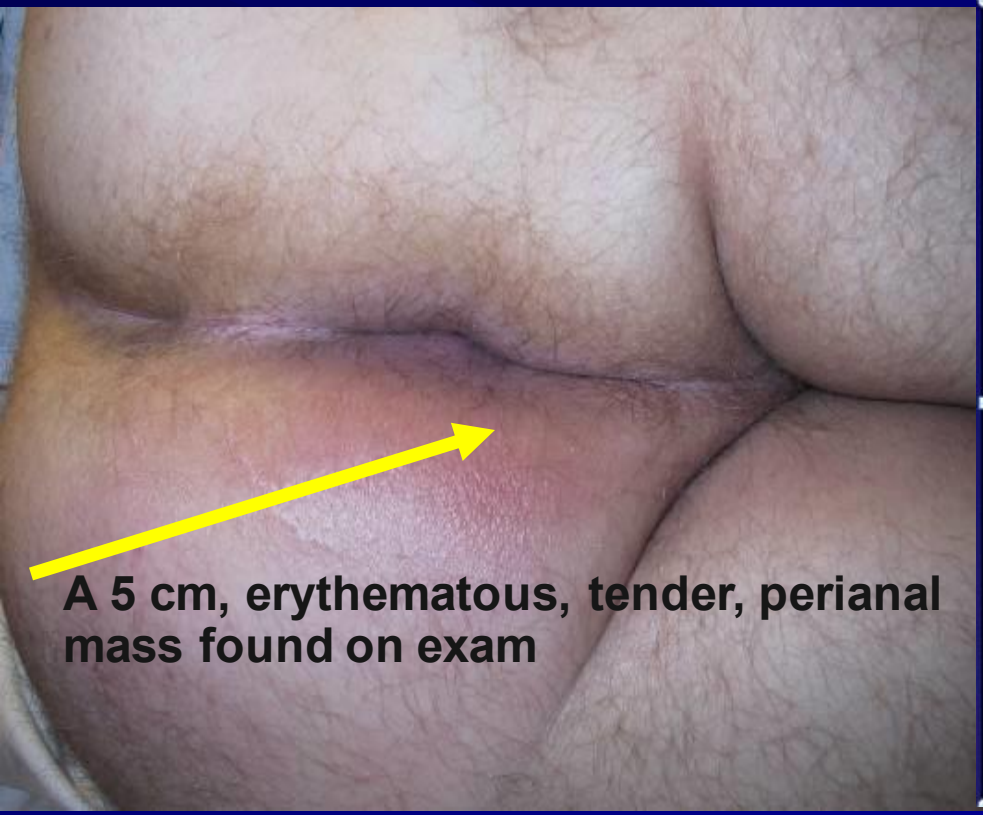
Treatment: I&D [incision and drainage] to avoid the forming of the fistula..

* Typs of abcesses:-
① inter s phincteric...
② Sub mucous abcesses...
③ Ischio rectal abcesses...
④ Supra levator abcesses...
↳ above the levator ani muscle..

need us guided drainage..

Ischiorectal abscess

↳ from the levator ani muscle to the perineum lateral to the anal canal...





* The fissure occur in the sensitive mucosa...

* Communication between internal opening and skin called sinus (not fistula)...

anal abscess and fistula

- **Anal fistula :** it is an abnormal communication between primary opening inside the canal and secondary opening in the peri-anal skin .
- a chronic abscess is a fistula while an acute fistula is an abscess

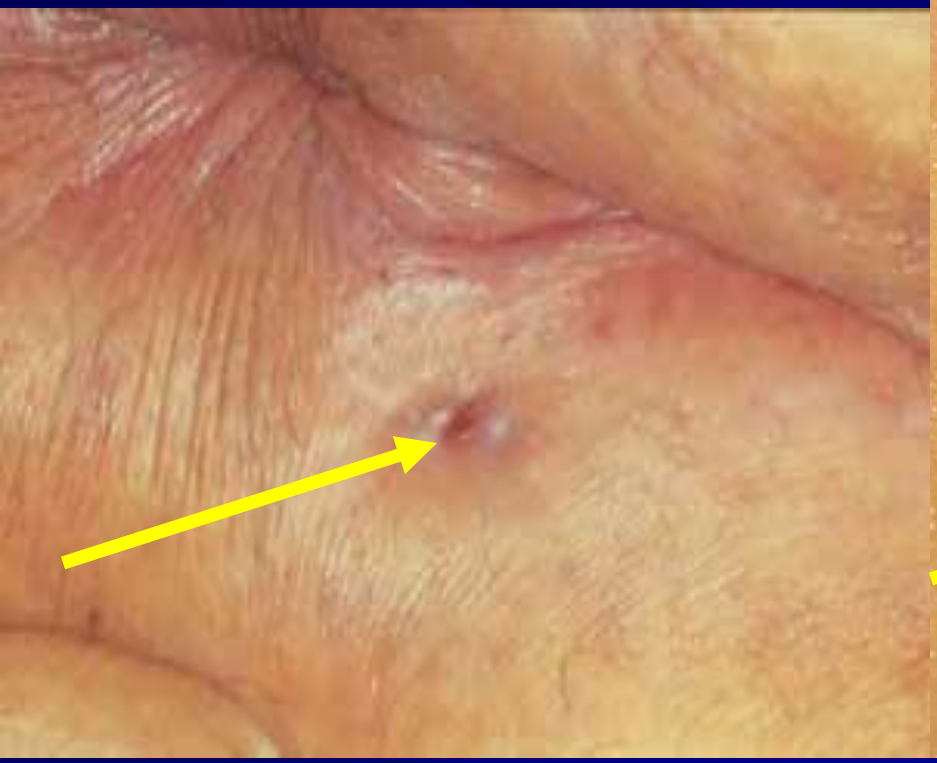
...anal fistula بل chronic abscesses ← معظم اللي احنا

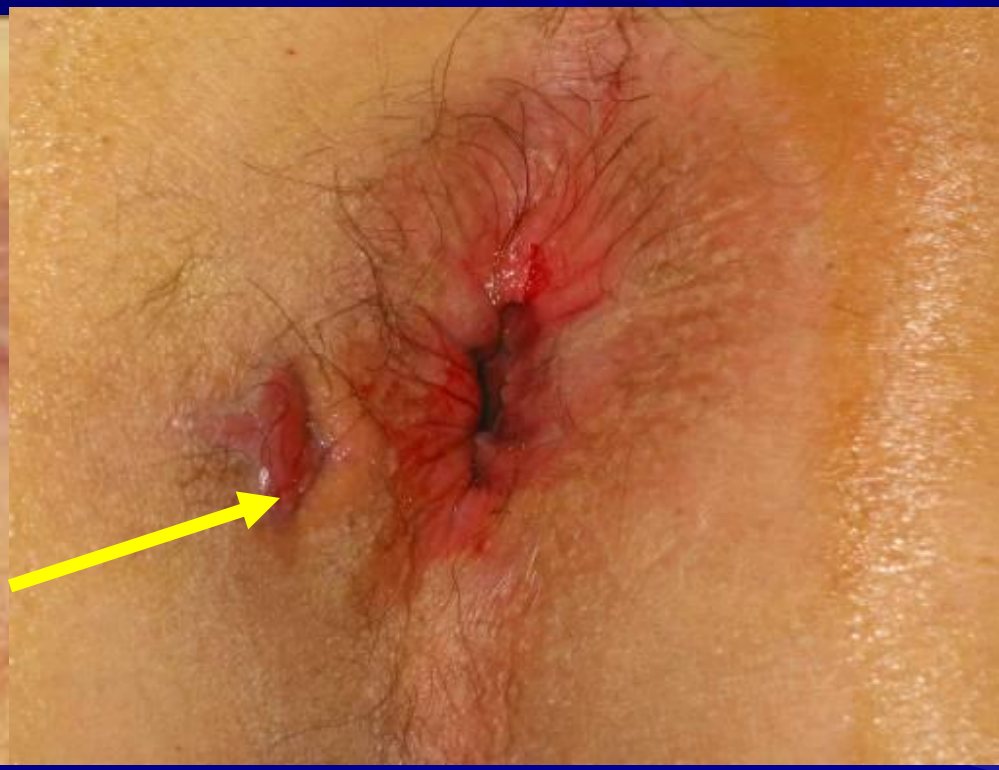
...anal abscesses بس بل acute fistula ← معظم اللي

* The MRI to anal sphincter diagnose the anal external sphincter injury need sphincter repair...

Perianal fistula

* DM may lead → Peripheral neuritis
→ urine incontinence due to neuritis [not improved by surgical tt]





~ 30-40% of all perineal sepsis once drained goes on to develop a fistula

~ 80-90% of perineal sepsis that yielded enteric organisms will develop a fistula

will not close after drainage

G a s :- E coli - Klebsiella - proteus.

Fistula in ano

- 95% crypto glandular (abcesses...)
  - i.e. origin in ano-rectal crypts at dentate line

- 5% rarities
  - Crohn's
  - TB
  - hidradenitis suppurativa
  - traumatic
  - malignancy
  - complicated diverticular disease
  - radiation
  - anastomotic leakage

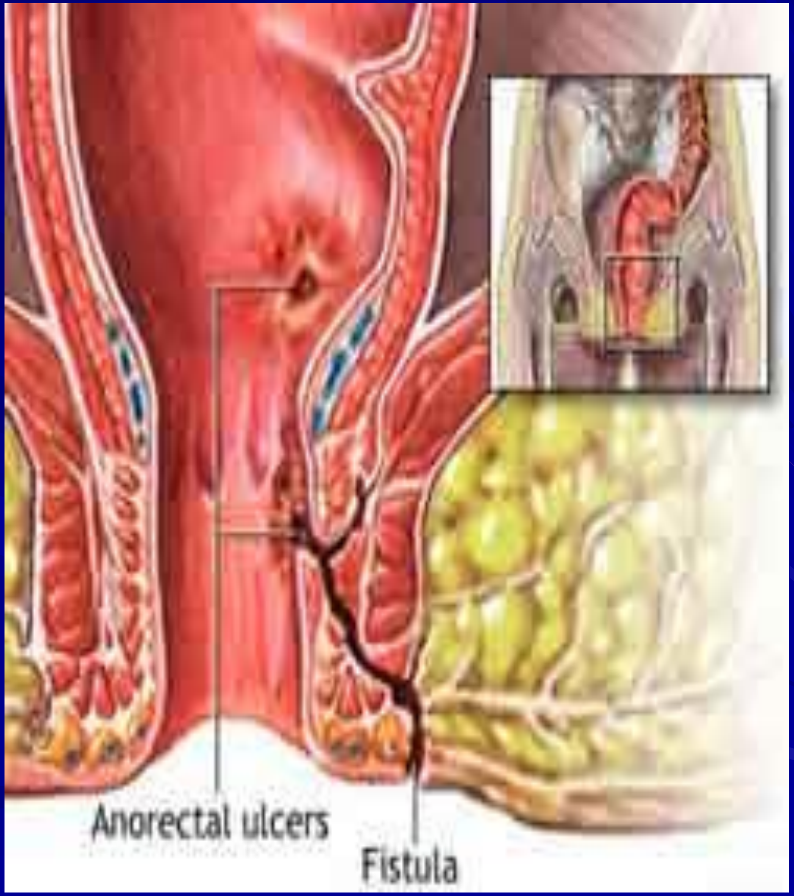


* we put ceton for any fistula involved the external sphincter..

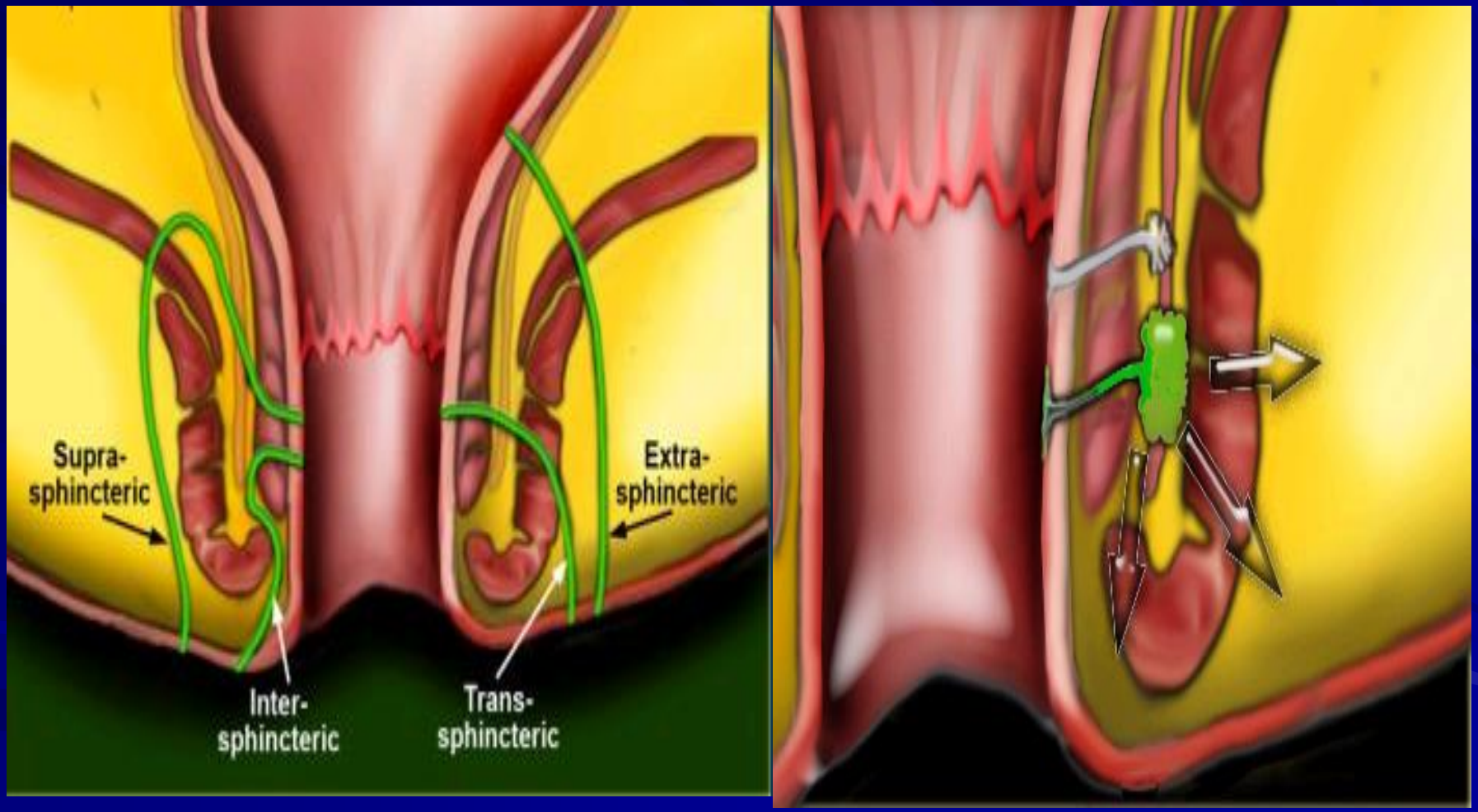
IV classification of fistulas

* all anal fistula open in the dentate line [internally] except the extra sphincteric fistula open in the Rectum...

- Inter-sphincteric: 70%
  - between 2 sphincters [treated by one stage operation]
- Trans- sphincteric: 25%
  - need more than one operation.. we put ceton to change the spring like muscle into incontinance [illegible] fibrosed muscle..
- Supra-sphincteric: 5%
  - formed lobe and reach above the levator ani and then open in the dentate line...
- Extra-sphincteric : 1%
  - open in the Rectum..



Classification



Goodsall's rule



- External opening posterior to 3-9 o'clock position open in posterior midline of the anal canal → curved fistula
- External opening anterior to 3-9 o'clock position open radially in the anal canal → strig + fistula
- ~80-90% accurate So it's a rule not a law..

symptoms

- Peri-anal discharge.
- Pain ← if the opening closed...
  - severe
- Swelling
- Bleeding
- Diarhhea



FIGURE 2

Perianal abscess

Perianal abscess is the most common type of anorectal abscess and is typically caused by infection with staphylococci, although other organisms can be responsible. This abscess occurred in a 12-year-old boy.

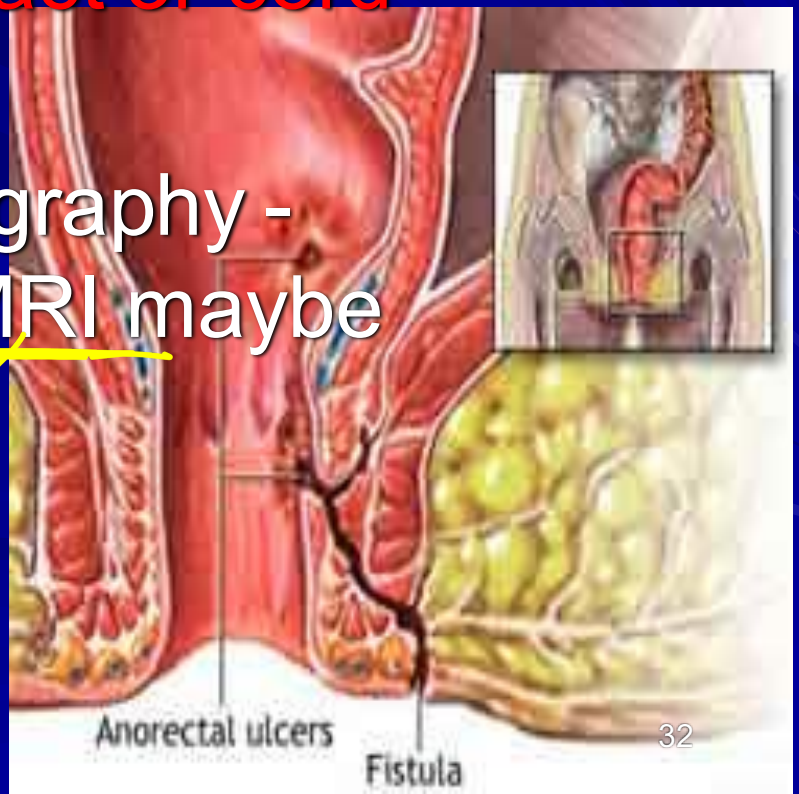
© Dr. P. Marazzi / Photo Researchers, Inc.

on examination

* The fistula diagnosed clinically...

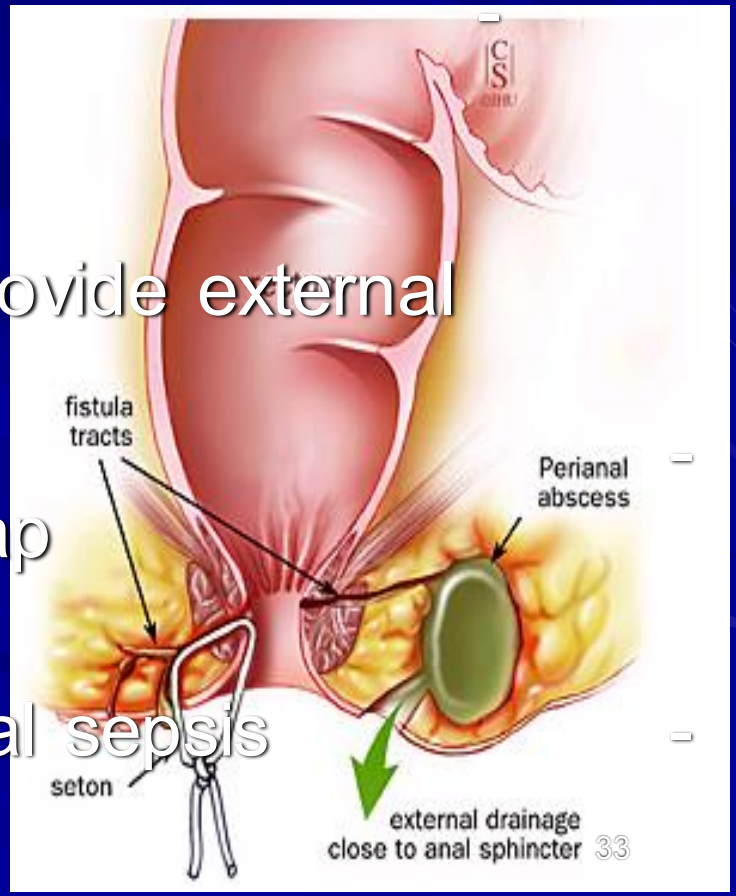
- Digital examination (PR) is usually all that is required.
- It may reveal a fibrous tract or cord beneath the skin.
- In complex cases fistulography - endorectal ultrasound- MRI maybe employed

* in MRI we exclude the extra sphincteric fistula...



treatment

- Divide tissues overlying track (to allow healing by 2y intent)
  lay open
  cutting seton
- Occlude internal opening & provide external drainage
  - anal fistula plug
  rectal or anal advancement flap
- Prevention of further ano-rectal sepsis
  draining seton

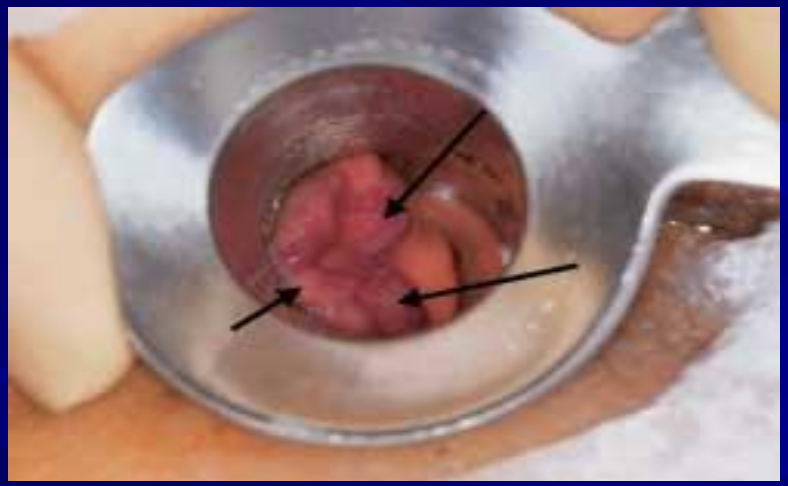


Management of fistula in ano

- **Strike a balance between**
  - -Cure of fistula
  - -Prevention of further anorectal abscess
  - -Preservation of continence



hemorrhoids



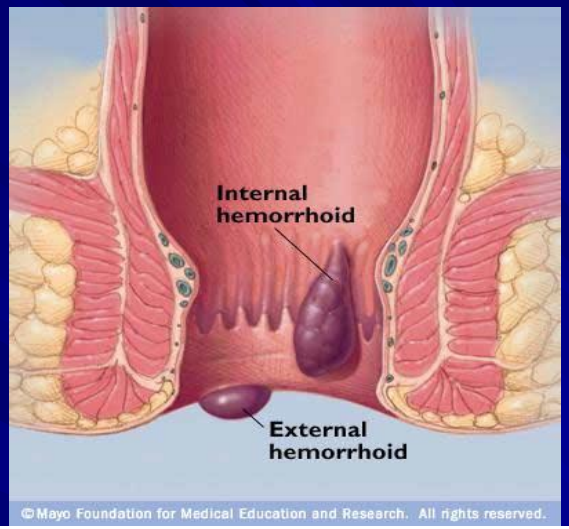


MCQ ✍ hemorrhoids

- They are engorgement of venous plexi "cushions" that sit in the anorectal junction.
  ↳ fibrovascular tissue.

It could be :

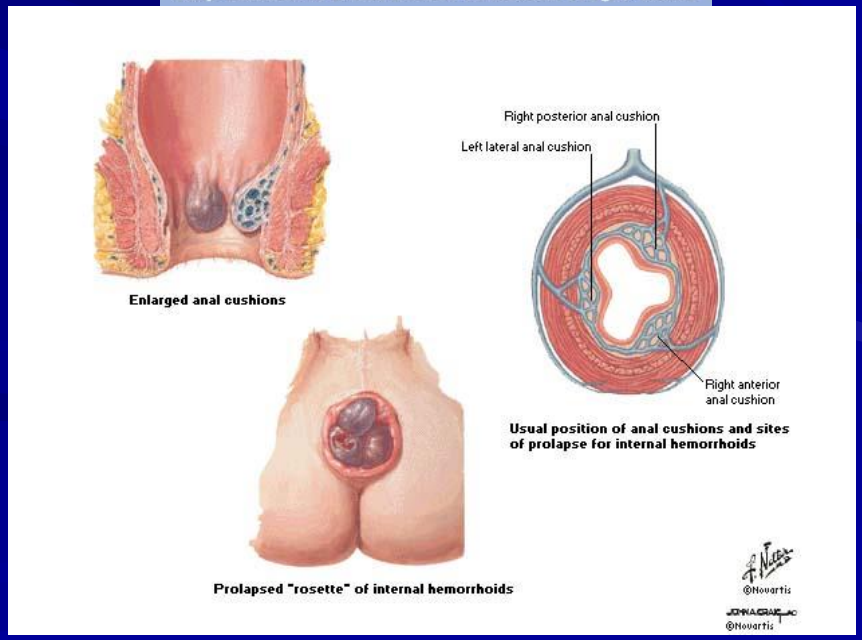
1. *External* : below the dentate line.
2. *Internal* : above the dentate line.
3. mixed hemorrhoids...



- While the patient is in the **lithotomy** position:
  Hemorrhoids are commonly situated at :

  * 3 mother cushions :-

1. 3 o'clock "left lateral" ←
2. 7 o'clock "right posterior" ←
3. 11 o'clock " right anterior" ←



classification

- **1st degree :**





- Small hemorrhoids which simply bleeds.

presented in the anus tip

- They do not prolapse.

- Visible on proctoscope.



classification

- **2nd degree :**

  Prolapsed and can be reduced either :

  - *Spontaneously* → 2nd degree
  - *Manually*: in another classification these are considered as 3rd degree hemorrhoids.





classification

- **~~3rd~~ 4th degree :**

  Prolapsed but can't be reduced : in another classification these are considered as 4th degree hemorrhoids.





possible causes

1. Constipation " most important "
2. Straining (raised intraabdominal pressure) → as hernia.
3. Altered bowel habits
4. Anorectal carcinoma * any pt presented with BPR we should do PR to exclude the Rectal Carcinoma..
5. Portal hypertension " rare cause " in 3%
   - due to proto systemic anastomoses which leads to :- esophegeal varices - hemorrhoid [3%] - varicose vein - etc.

* The external hemorrhoid → may associated with pain... [somatic nerve supply]...
But there is no pain in the internal hemorrhoid [Autonomic nerve supply]

symptoms

- Bleeding (usually painless) ✓ after defecation + fresh Blood [not mixed with stool]...
- Prolapse ✓
- Pruritis ✓ (due to mucus.)
- Soiling of underwear "mucous" ✓
- Discomfort on defecation ✓
- *If pain is present with absence of strangulation look out for other conditions "fissure-hematoma-abscess"* ✓

or Complicated Pile [hemorrhoid]as:- thrombosis...

* The hemorrhoid is the dz of elderly ⇒ 50% occur above 50 y/o...

diffrential diagnosis

- Anal polyps
- Fissures
- Peri-anal hematoma
- Rectal prolapse
- IBD
- Dermatitis
- Ano-rectal carcinoma

So we should do PR or sigmoidoscope to exclude the Cancer..

diagnosis

- History
- Examination
- Proctoscopy
- Sigmoidoscopy or colonoscopy to rule out other causes such as **CARCINOMAS**

...indicate anal fistula ← مريض جاي معه افرازات من فتحة جنب فتحة الشرج

...indicate Anal fissures ← 3-4 hr بيضل defecation لما حاد معه الم حاد بعد

← لكنه جاي وهو الم حاد

complications

Bleeding may lead to Anemia

- Hemorrhage
- Strangulation
- Thrombosis
- Ulcerations
- Gangrene
- Fibrosis
- Suppurations



treatment

- **Advise the patient to :**
  - Receive a high fiber diet
  - Use bulking laxatives
  - Avoid straining
  - Keep a good anal hygiene

→ Surgical..

treatment

- The definite treatment varies according to the degree of hemorrhoids.
- **1st degree:**

Usually in the outpatient clinic by

- ***Sclerotherapy*** :

Injection of a sclerosing agent such as 5% phenolin oil, 4% polidocanol

- ***Infra-red photocoagulation***

treatment

- **2nd degree:**
- ***Rubber band ligation :***

- Tight rubber band is applied over the pedicle.
- It will draw the prolapsing hemorrhoids back up into the anal canal and may lead to its destruction.
- This is done in the outpatient clinic :

  2 bands per session

  4 weeks between each session



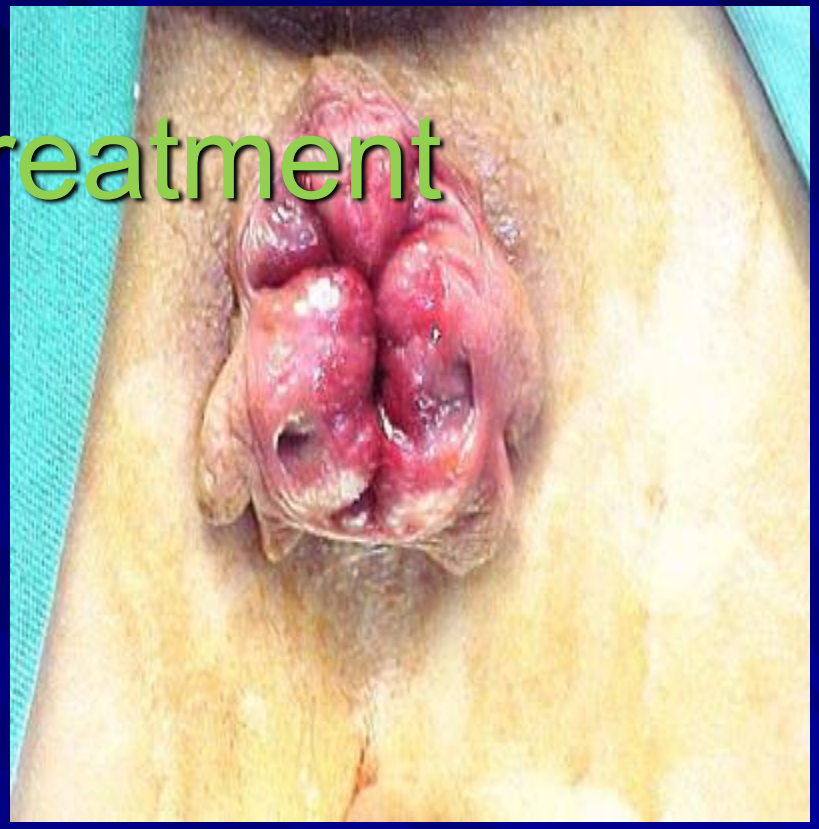
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Surgical treatment

3rd degree:

- For 3rd / 4th degree haemorrhoids

- Open haemorrhoidectomy
- Closed haemorrhoidectomy
- Ligasure haemorrhoidectomy
- THD
- Stapled haemorrhoidopexy (PPH)



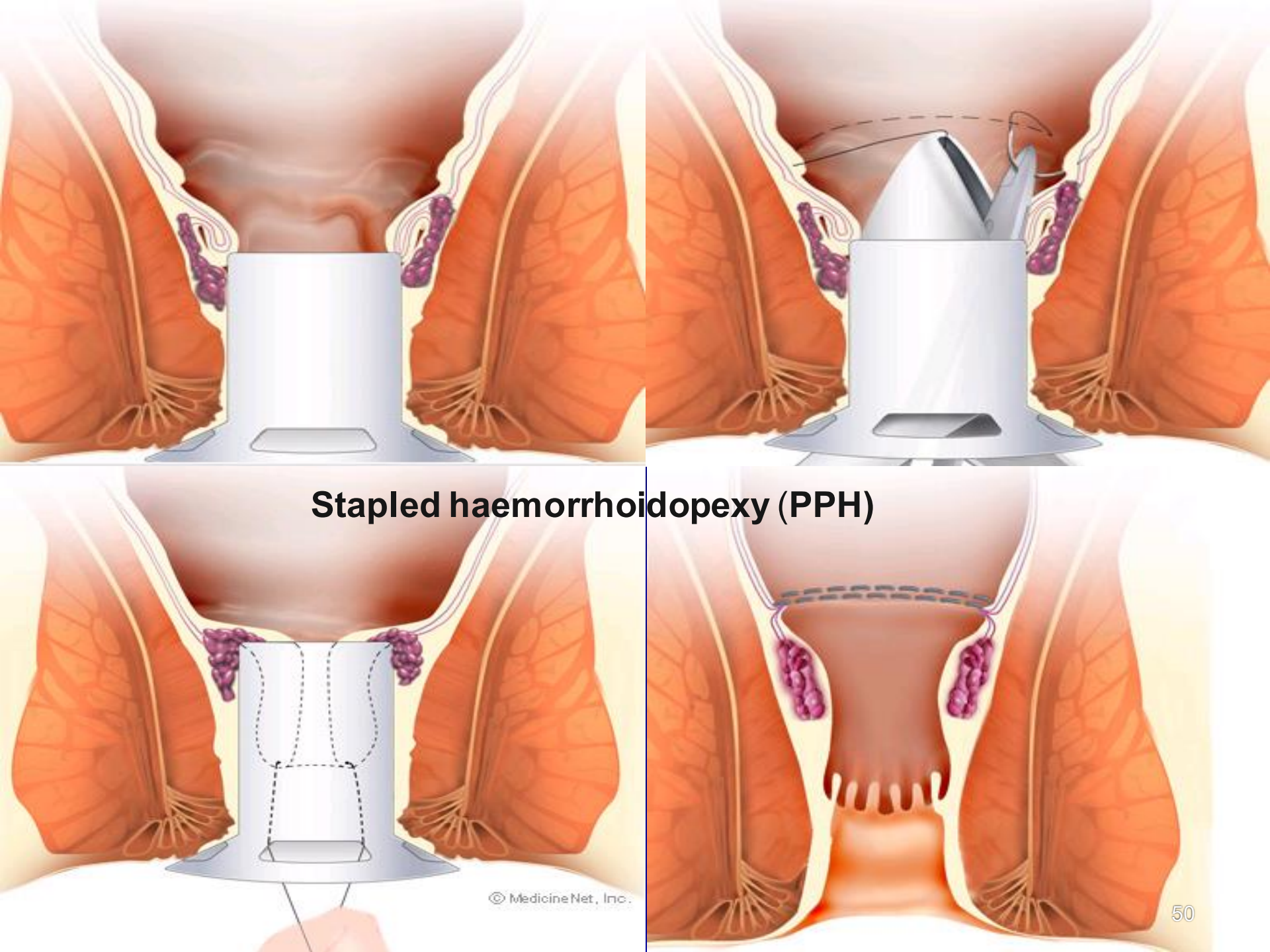








Stapled haemorrhoidopexy (PPH)



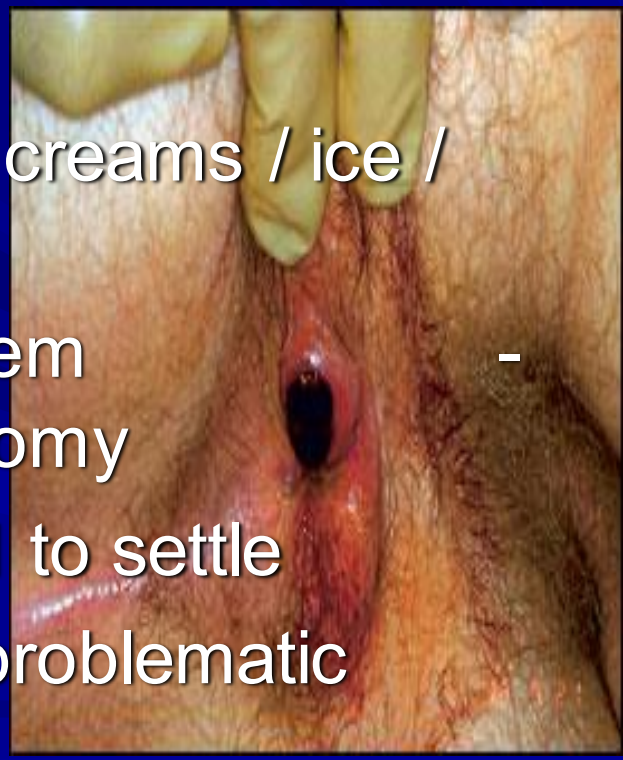
treatment

- **Complication of Hemorrhoidectomy:**
  - Acute urine retention. → due spasm in the internal urethral sphincter..
  - Exsanguinations " bleeding may pool proximally in lumen of colon". → all types of hemorrhage...
  - Pelvic infection.
  - Incontinence.

→ severe pain ...
→ anal stricture..
→ recurrance...

Painful prolapsed haemorrhoids

- natural history (worst pain days ~ 3-7, then settles)
- most resolve with conservative Rx
  - lactulose / topical anaesthetic creams / ice / paracetamol & NSAIDs /
- relief of anal spasm (GTN or diltiazem
- failure to resolve > haemorrhoidectomy
- refer gangrenous or those that fail to settle
- interval haemorrhoidectomy if still problematic



Anal Cancers



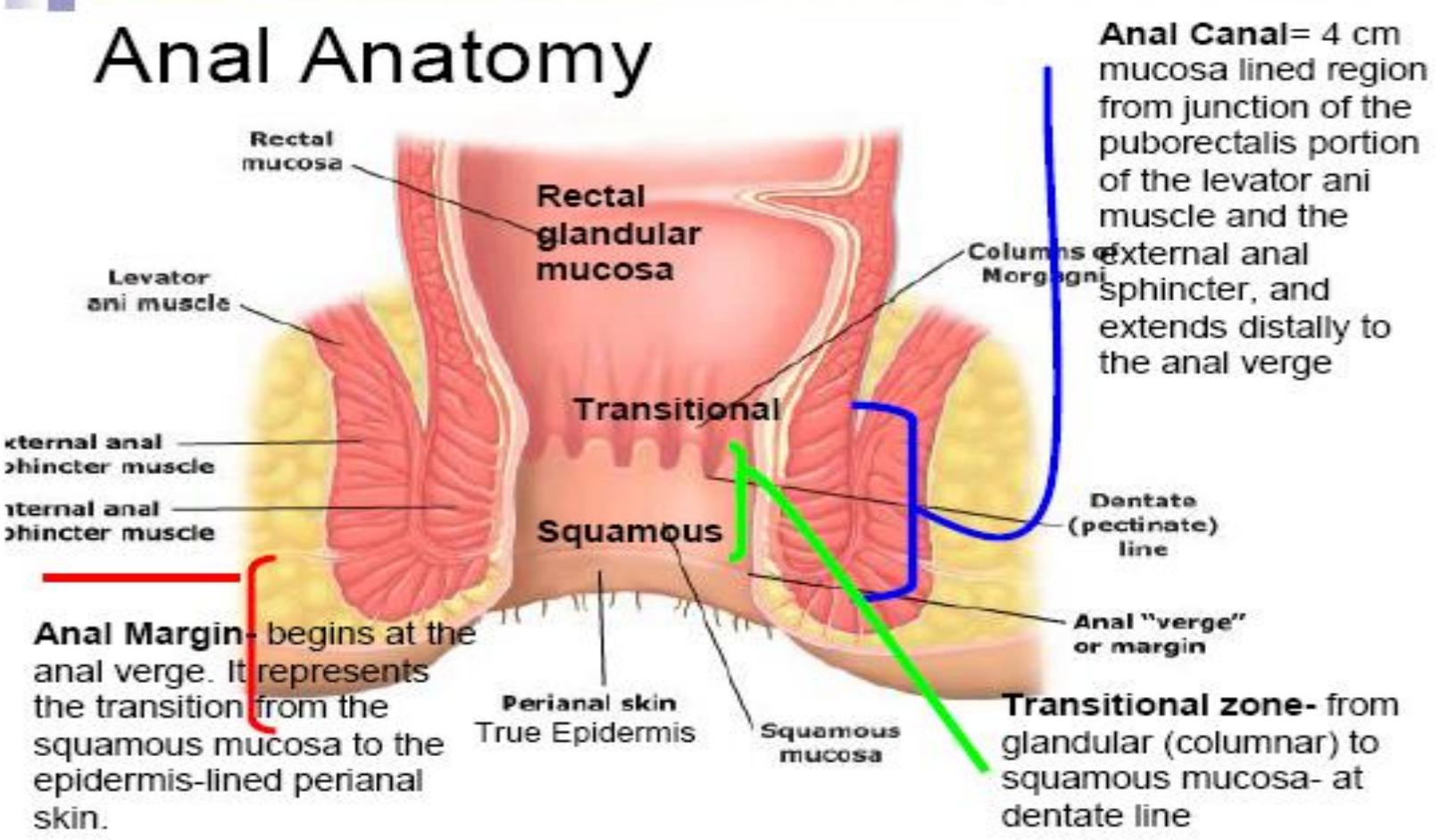
Anal cancers

↳ treated by radio or chemo therapy I no need for surgical tt J...

- Perianal and anal canal malignancies are rare accounting for only 2% to of GIT malignancies but with HIV and homosexual may increase the incidance of Anal Cancer..

- 75% are in anal canal itself, 25% are marginal tumors
  ↳ 5cm around the anal verge...

Anal cancers



Cont....

- The commonest type is a squamous mc الاعم (epidermoid) carcinoma 80%

Most anal cancers arise from:

- keratinized squamous epithelium of the anal margin .
- The Pecten.
- Non- keratinized squamous epithelium of the anal canal transitional zone immediately above the (dentate) line.

Cont.…

- 10% of anal tumors are adenocarcinoma which arise from the glandular epithelium of the upper anal canal.

Most patients (with adenocarcinoma) present in the 6th and 7th decades.

- Other rare tumors include malignant melanoma, lymphoma and Kaposi's sarcoma (often associated with AIDS).

Causes and Risk Factors

- Is not fully defined. (multiple factors)
- (1) Human papilloma virus infection is the most causative agent, HPV types 16 & 18 have been identified in more than 50% of the anal carcinoma.
- (2) HIV infection is also a predisposing factor owing to immunosuppression and susceptibility to viral infection.
- (3) Anogenital warts are a risk factor.



condyloma

Cont….

- **Other risk factors:**
- Receptive anal intercourse:

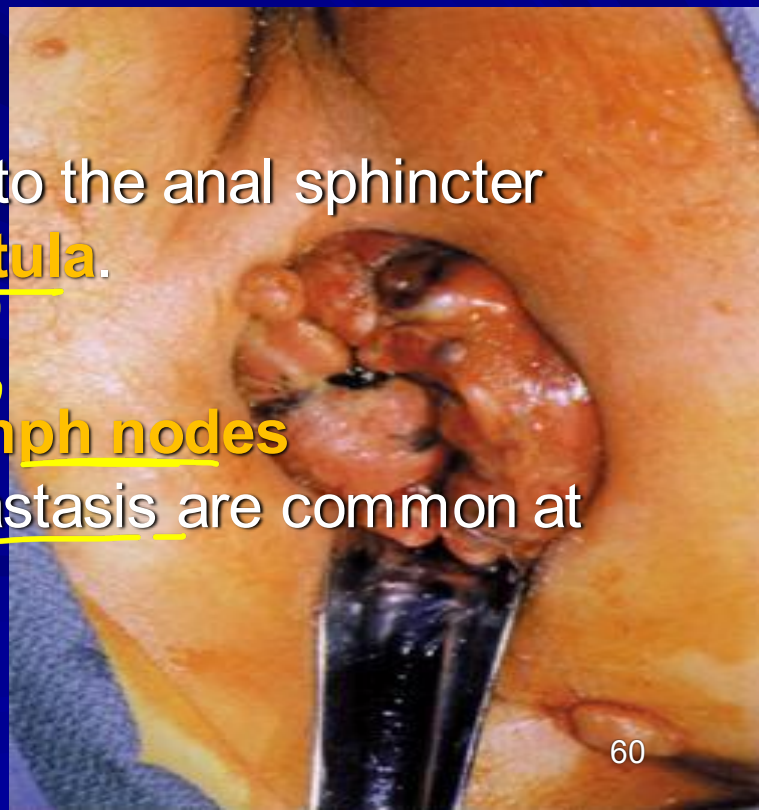
- Hx of cervical, vulvar, or vaginal cancer.

- Smoking appears to be a 2-5 fold risk factor.



Clinical Presentation

- The most common symptom is **bleeding.**
- **Anal pain** and painful defecation, mass, discharge into underwear, or **Pruritis**
- Advanced tumors that have spread to the anal sphincter may present with **incontinence, fistula**.
- In case of malignant melanoma, **lymph nodes involvement** and wide spread metastasis are common at presentation.



Cont.…

- Hard, irregular, ulcerated mass.
- The inguinal lymph nodes are the most commonly involved. canal tumors can spread proximally to the mesorectal or the internal iliac LNs.
- Examination under anesthesia is necessary in almost all cases to allow tumor biopsy and Sigmoidoscopy.
- Biopsy is essential to confirm the Dx and to determine the tissue origin.

Staging

Staging system for anal cancer	
T1	<2 cm
T2	2-5 cm
T3	>5 cm
T4a	Invading skin, rectal or vaginal mucosa
T4b	Invading structures other than the skin, rectal or vaginal mucosa (i.e. local spread to muscle or bone)

Cont.…

- The staging is important for prognosis and direct treatment approaches.

- Examination under anesthesia is an important part of clinical staging as the tumor is often painful and anus is very tender.

Cont….

- Endoanal US also performed under anesthesia.
- CT scan and MRI are now standard because they are highly accurate and widely available.
- CT PET

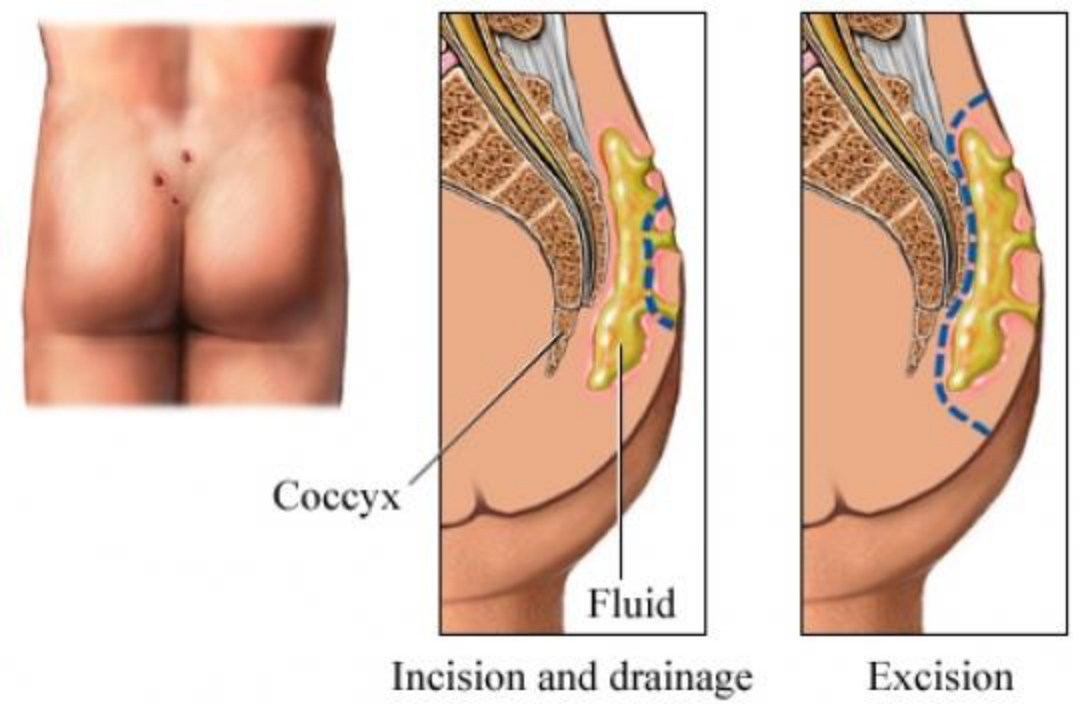
Treatment

- Treatment for anal SCCis a radiotherapy to the anal canal and inguinal LNs, combined with 5-flurouracil and mitomycin c. **NIGRO regimen**
- Surgery **(APR)** is indicated in cases in which residual tumor is present after radiation and chemotherapy.
- Also, surgery plays an important part in management of advanced disease after radiotherapy treatment failure.

Prognostic Factors:

- Tumors < 2 cm have > 90% 5-years survival.
- Tumors > 5 cm have < 50% 5-years survival.
- Patients with positive lymph nodes involvement regardless of tumor size, have ≈ 50% 5-years survival.

Pilonidal sinus / & abscess



Abscess often deep-seated – do not respond to antibiotics

Pilonidal sinus / & abscess

لما تحصل عند السرة أو مابين اصابع الخلاقيت

- Pilo = hair Nidal = nest
- More common in men 4:1 (M:F) , more common in obese pt..
- Acquired theory ? (التي يلزق ما بين الخدين)
- Peak incidence 15 -35 year
- Chronic trauma **Jeep rider's** disease
- Most are asymptomatic,

with midline pores 2-3 in number

- 5 cm away from anus

* presented in the nidal cleft between the 2 Bottocks..



Treatment

- Early conservative treatment
- Natal cleft hygiene
- Removal of hair outside and inside
- Early infection Antibiotics for anaerobic bacteria
- 80% phenol injection
- Abscess drained away from midline

remove the hair from under the skin may lead to improvement...

general

Pilonidal sinus disease

Treatment is surgical

- Open method
- Excision, cavity left open
- Daily dressing
- Healing 6-8 weeks

- Closed method
- Excision and primary closure
- Many options



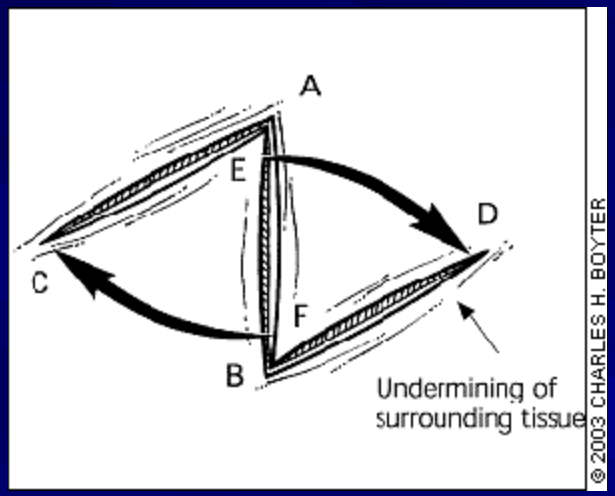


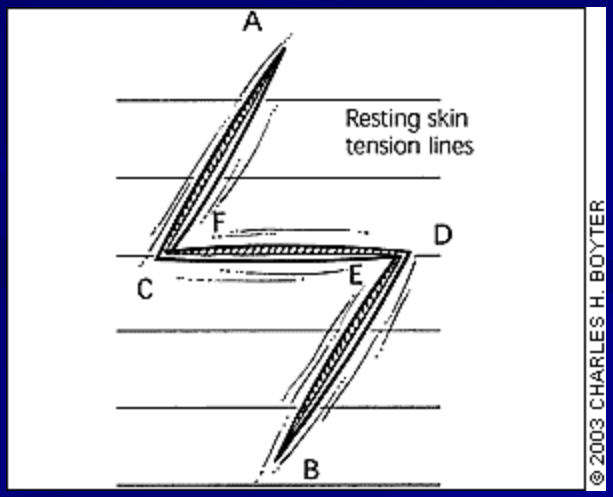
Healing by 2y intent

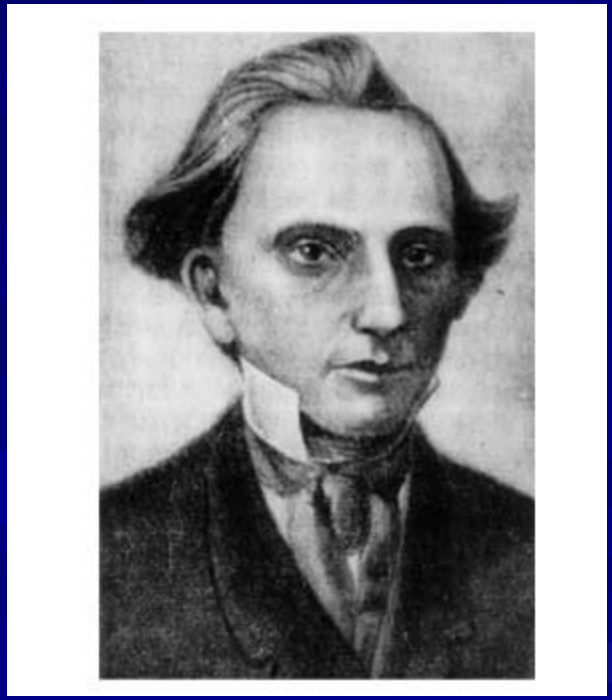





Z plasty



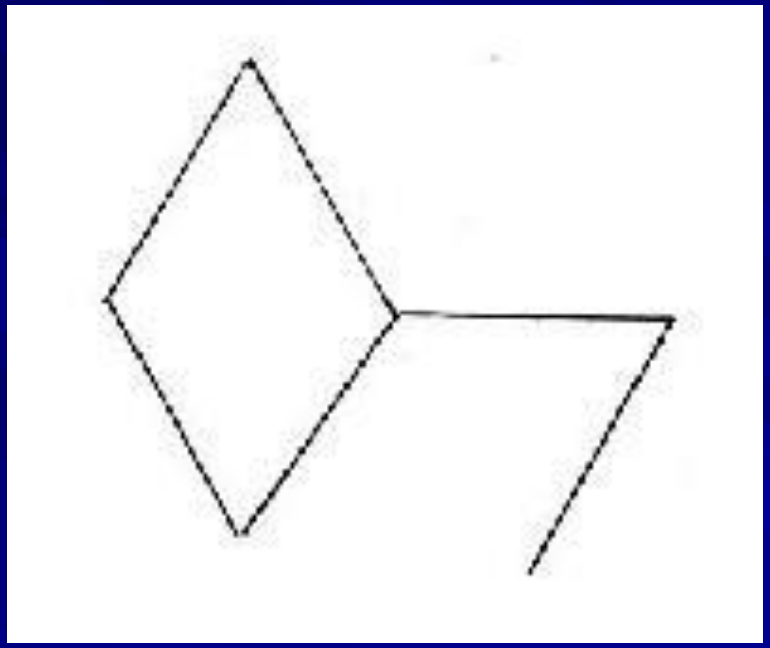




Uli Szymanovski

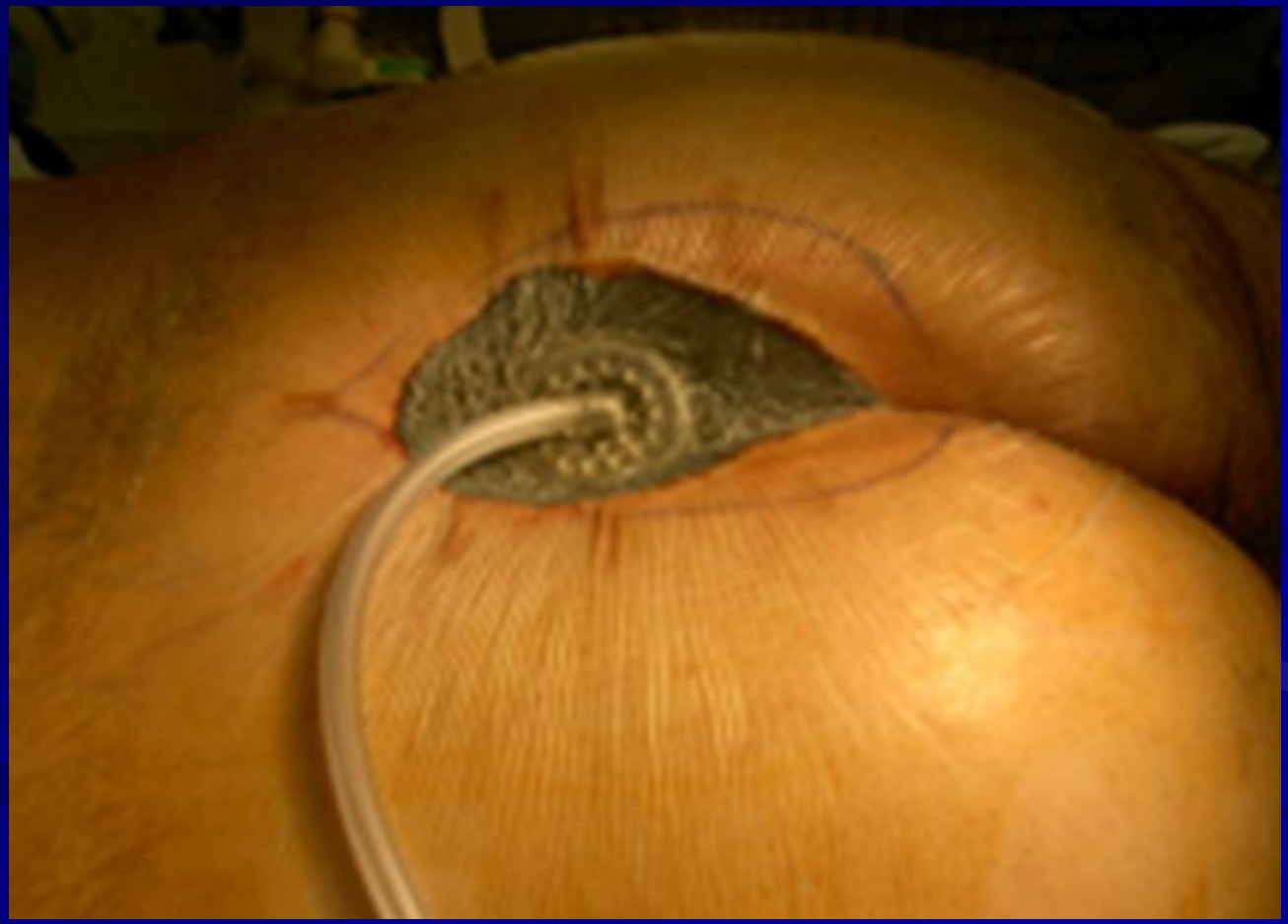
Developed ‘Z’ plasty wound closure

Rhomboid flap



Healing by 1y intention ~90% of time as with Z plasty

Healing using Vac Therapy



Pruritus ani



Night > day male> female

Rule out coexistent dermatoses / renal failure / liver disease

Fungal,parasitic,bacterial disease.

Ano-rectal examination & proctoscopy.

Treat ano-rectal pathology (haemorrhoids / faecal incontinence / anal tags etc).

Pruritus treatment

- Avoid synthetic / tight underwear
- Avoid perfumed soaps etc
- Avoid scratching
- Use hairdryer to dry skin
- Avoid steroid creams
- Treat anal pathology / diarrhoea
- Dermatology involvement

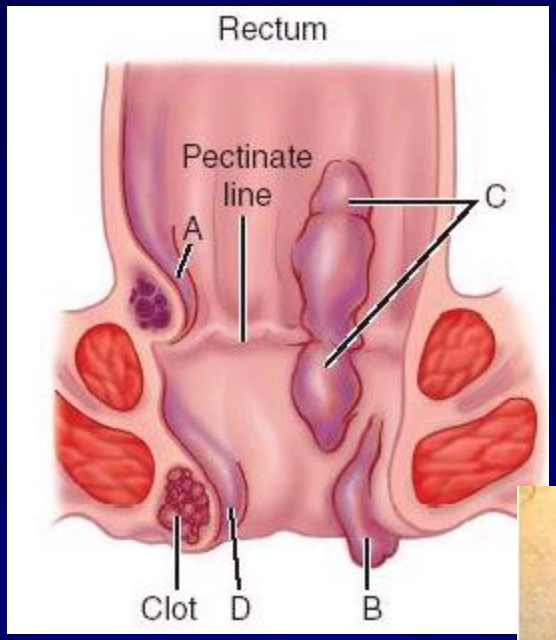
- Methylene blue injections

> ~80% successful

- - s/e occasional cellulites / ulcer / incontinence






Rectum
Pectinate line
A
C
Clot
D
B











Faecal incontinence - understand continence first!

- Brain / higher centres
- Spinal cord
- Reflex arcs
- Pudendal nerves
- Ano-rectal sensation ‘sampling’
- Stool consistency
- Rectal compliance
- Anal sphincter complex

Faecal incontinence

- Causation

- Obstetric injury (8-30% sphincter injury rate at childbirth)

- Post-surgical
- Faecal impaction
- Neuropathy / MS / Parkinson's
- Poor mobility / impaired cognition
- Diarrhoea
- IBS / rectal non-compliance

Treatment incontinence

- dietary measures
- treat diarrhoea / impaction / IBS
- non-operative
  - collagen injections
  - anal plug
- sacral nerve stimulation
- sphincter repair
- artificial sphincters
- graciloplasty

Assessment of incontinence

- Cleveland clinic score
  - severity of soiling
  - frequency of soiling
  - use of pads
  - lifestyle disruption
- History of back injury / neurolgical disorder
- Urinary incontinence
- Saddle anaesthesia

Assessment of faecal incontinence

- History
- Examination

- Endoanal USS (sphincter injury)

- Anorectal manometry (rest & squeeze strength)

- Pudendal nerve terminal latency (sensation)