Barnsley Hospital NHS
NHS Foundation Trust

Barnsley Hospital Quality in Care

Colorectal & GS Disorders Advance Laparoscopic Colorectal Surgery at Barnsley

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FRCSEd, FRCS (Gen Surgery),

Colorectal & Other Diseases

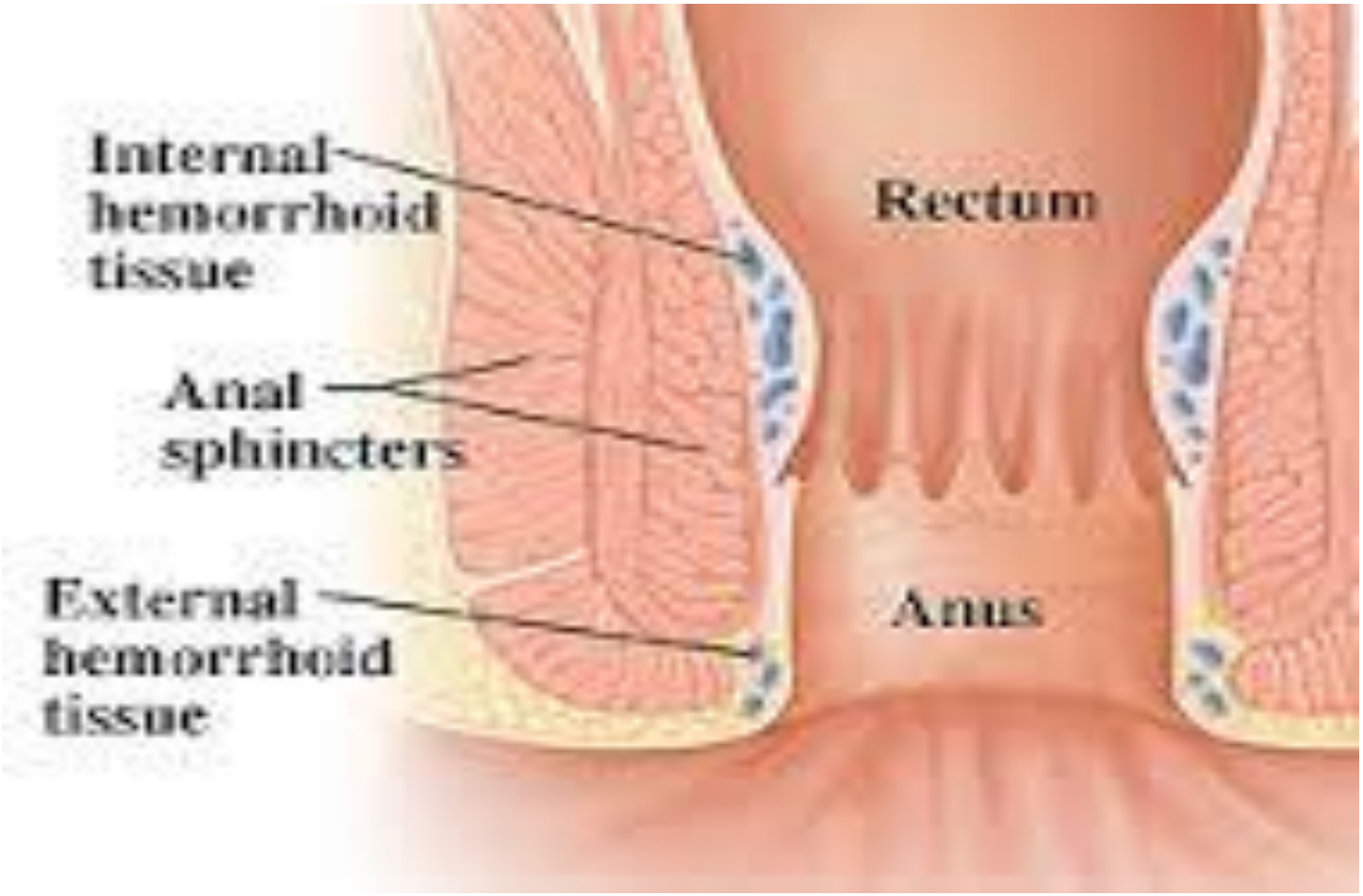
- Haemorrhoids
- Anal Fissure
- Perianal Abscess
- Pilonidal Sinus
- Gall Stones

Haemorrhoids
Normal Physiology

- Internal Haemorrhoids are arteriovenous plexuses, anal cushions found above the dentate line consisting of mucosa submucosal fibroelastic tissues and smooth muscles

- They complement anal sphincter function provide fine control over continence of liquid and gas and feed vital sensory information

Normal Haemorrhoids



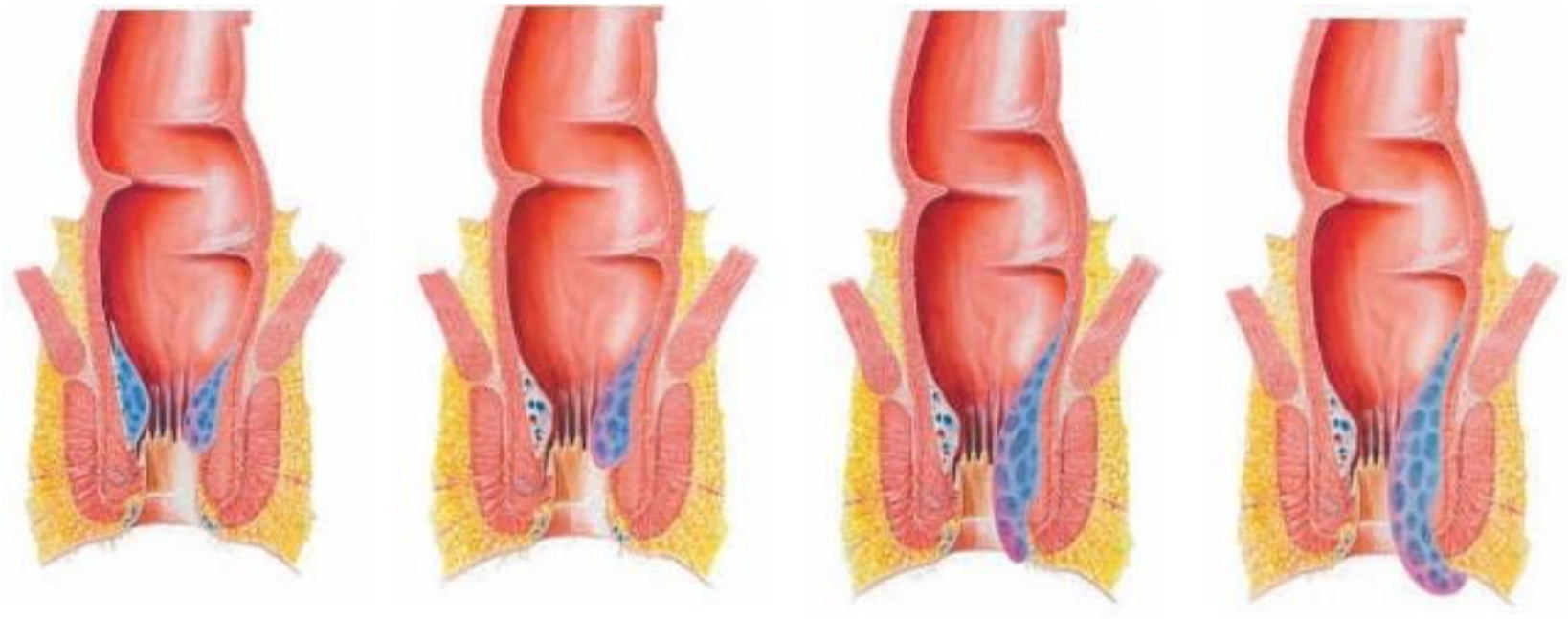
Classification of Haemorrhoids

- Classified by anatomical origin within the anal canal, relative to the dentate line
- ***Above*** it internal Haemorrhoids
- ***Below*** it external Haemorrhoids

Aetiology of Both Haemorrhoids

Habitual	Pathological
1. Constipation and straining 2. Physical exertion 3. Low fibre high fat/spicy diet 4. Prolonged sitting in toilet 5. Pregnancy 6. Aging 7. Obesity 8. Office work 9. Family tendency	1. Chronic diarrhea (IBD) 2. A bout of acute diarrhea 3. Colon malignancy 4. Portal hypertension 5. Spinal cord injury 6. Rectal surgery 7. Episiotomy

Internal Haemorrhoids Grading



Gr I — not prolapse

Gr II — returns spontaneously

Gr III — manually returned

Gr IV — remains prolapsed

Grading of hemorrhoids (on history)

External Haemorrhoids

- External haemorrhoidal veins are found all around anal canal and can cause trouble anywhere circumferentially

- Supplied by sensory innervation so may become painful and itchy.

Internal Haemorrhoids Presentation

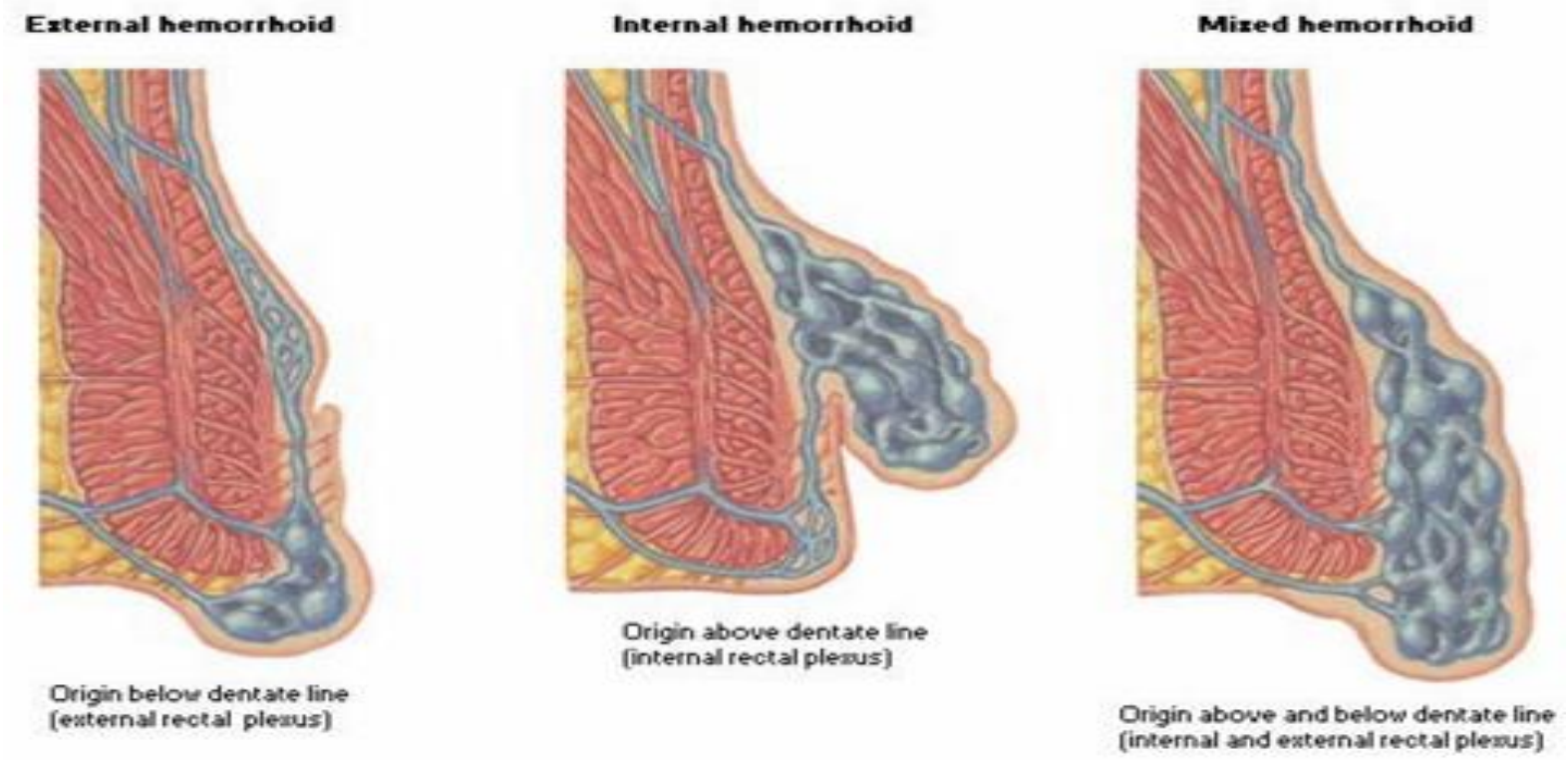
- Painless bright red bleeding
- Perianal itching
- pruritus ani
- Prolapsed piles
- Incarceration/strangulation causes in perianal pain/discomfort due to sphincter spasm

External Haemorrhoids Presentation

- Acute thrombosis, sudden exertion
- Distention of perianal skin by the clot and oedema causes pain
- Hygiene difficulties
- External thromboses occasionally erode the overlying skin and cause bleeding.
- Recurrence occurs approximately 40-50% of the time

Interno-External Haemorrhoids

- Mixed haemorrhoids arise both above and below the dentate line



Primary care management

Commissioning guide 2013

//www.rcseng.ac.uk/healthcare-bodies/docs/published-guides/rectal-bleeding

- Adopt a ‘watch and wait’ policy for minimally symptomatic
- Patients with symptomatic haemorrhoids should be given advice about topical treatment, oral fluid intake, high fibre diet and laxatives

Soothing Preparation

- Soothing preparations containing mild astringents such as bismuth subgallate, zinc oxide
- Constriction of mucous membranes & capillaries reduces blood flow and hence inflammation
- May give symptomatic relief
- Many proprietary preparations also contain lubricants, vasoconstrictors, or mild antiseptics
- Not recommended for prolong usage

Local anaesthetics

- Lidocaine ointment relieve pain and pruritus ani but good evidence is lacking
- Local anaesthetic ointments can be absorbed through the rectal mucosa therefore excessive application should be avoided
- Preparations containing local anaesthetics should be used for short periods only (no longer than a few days) since they may cause sensitisation of the anal skin

Corticosteroids

- Corticosteroids are often combined with local anaesthetics and soothing agents in preparations for haemorrhoids
- They are suitable for occasional short-term use (7 days) Exclude local infection
- prolonged use can cause atrophy of the anal skin, contact dermatitis and skin sensitisation

Referral to Hospital

- Referral to colorectal services if symptoms persist/alter or got worse
- Prolapsed piles not amenable to local treatment
- Significant family history of Colorectal cancer /inflammatory Bowel Disease in young age
- Worried/anxious patient
- Patient choice

External piles GP treatment

- Conservative treatment includes analgesia, ice packs and stool softeners.
- If managed conservatively, symptoms usually settle within 10-14 days.
- Thrombosis and pain resolve in 7-14 days leave behind the stretched anal skin called skin tags
- External thromboses occasionally erode the overlying skin and cause bleeding----*Ref to Hospital*

What We Do

- Apart from General management & Flexi
- Degree of prolapse and severity of symptoms
- Rubber band ligation treat up to 80% of patients with short term outcomes.
- About 20% require a second banding within six months

NICE Guidance for HAL

www.nice.org.uk/guidance/ipg342

- Current evidence on haemorrhoidal artery ligation shows that this procedure is an efficacious alternative to conventional haemorrhoidectomy or stapled haemorrhoidopexy in the short and medium term, and that there are no major safety concerns

Surgical haemorrhoidectomy

- Particular is indicated in the following situations

- Conservative or other treatment failure
- Grade III and IV haemorrhoids with severe symptoms
- Presence of concomitant anorectal conditions (fistula, skin tags, a history of multiple external thromboses, or internal haemorrhoid trouble) requiring surgery
- Patient preference
- About 5-10% of people with haemorrhoids eventually require surgical haemorrhoidectomy.
- Postoperative pain remains the major complication, with most patients requiring 2-4 weeks off before returning to normal activities. Other possible complications include urinary retention, anal stenosis, and incontinence

Acute Crises Illustration

Perianal Abscess

Perianal abscess almost always arise from a fistulous tract. It is an infection of the soft tissue surrounding the anus.

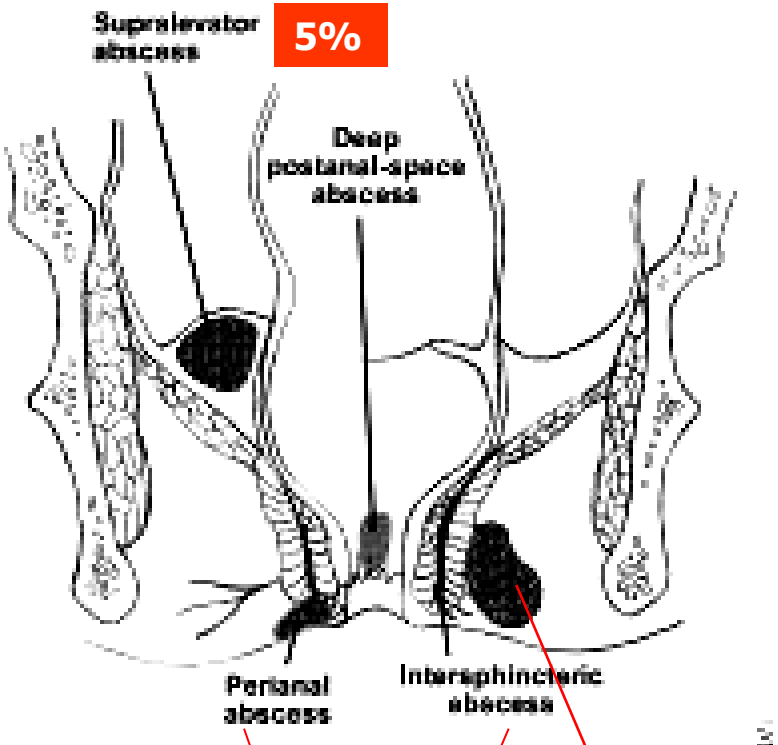
Aetiology & Pathogenesis:

- 4-10 glands at dentate line.
- Infection of the cryptglandular epithelium resulting from obstruction of the glands.
- Ascending infection into the intersphincteric space and other potential spaces.
- Bacteria implicated:

E.Coli., Enterococci, bacteroides

Other causes:

- Crohn
- TB
- Carcinoma, Lymphoma and Leukaemia
- Trauma
- Inflammatory pelvic conditions (appendicitis)



Intersphincteric

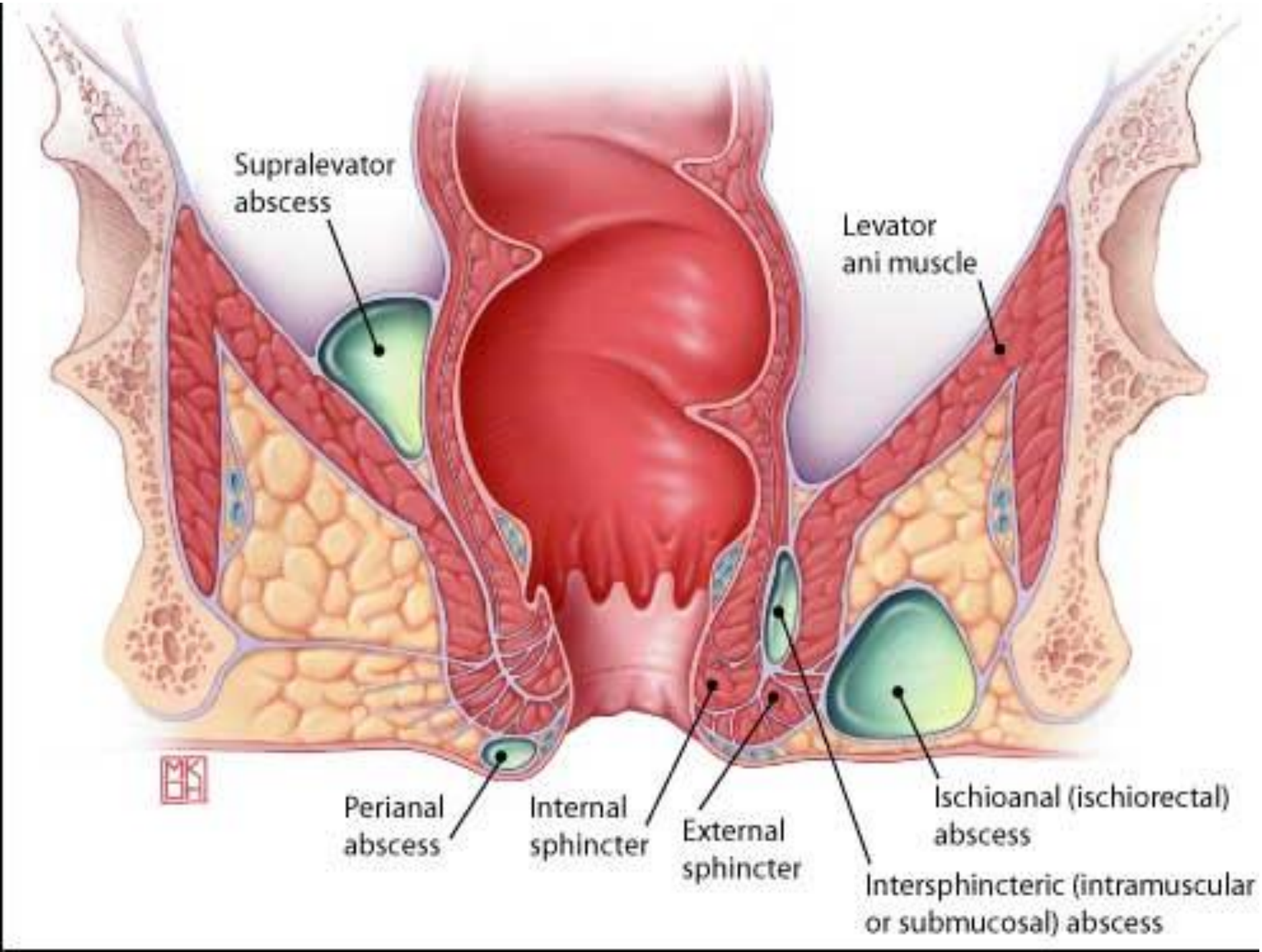
suprasphincteric

Trans-sphincteric

extrasphincteric

Perianal Abscess
Clinical presentation

Abscess	Clinical presentation
Perianal	•Perianal pain, discharge (pus) and fever •Tender, fluctuant, erythematous subcutaneous lump
Ischio-rectal	•Chills, fever, ischiorectal pain •Indurated, erythematous mss, tender
Intersphincteric Supralevator	•Rectal pain, chills and fever, discharge •PR tender. Difficult to identify are. EUA needed


Supralevator abscess
Levator ani muscle
Perianal abscess
Internal sphincter
External sphincter
Ischioanal (ischiorectal) abscess
Intersphincteric (intramuscular or submucosal) abscess

Anatomical distribution

- Most common (60%) - caused by direct extension of sepsis in the intersphincteric plane caudal to the perianal skin
- Ischiorectal abscess: (20%) - results from extension of sepsis through the external sphincter into the ischiorectal space
- Intersphincteric abscess: (5%) - depending on the effort made to find them, sepsis confined to the intersphincteric space
- Supralevator abscess: (4%) - produces horseshoe abscess track

Anal Fissure

- Linear tears in the anal mucosa exposing the internal sphincter
- 90% are posterior
- Caused mainly by trauma (hard Stool). Followed by increased sphincter tone and ischemia.
- Other causes: IBD, Ca, Chronic infections

Anal Fissure
Clinical Assessment

Acute	Chronic
•Sever acute pain •Fresh blood spotting •Clean linear tear.	•Pain mild to moderate •More than 6 weeks •Hypertrophied Int.sphincter •Skin tag •Granulation around the edge

Anal Fissure
Treatment

Conservative	Surgical
•High fibre diet •Medical sphincterotomy: –GTN 0.4% for 8/52 –Ca channel blockers –Butulinum toxins	Fissurectomy Lateral sphincterotomy

Pilonidal Disease

- The word pilonidal derives from the Latin words pilus ("hair") and nidus (“nest”)

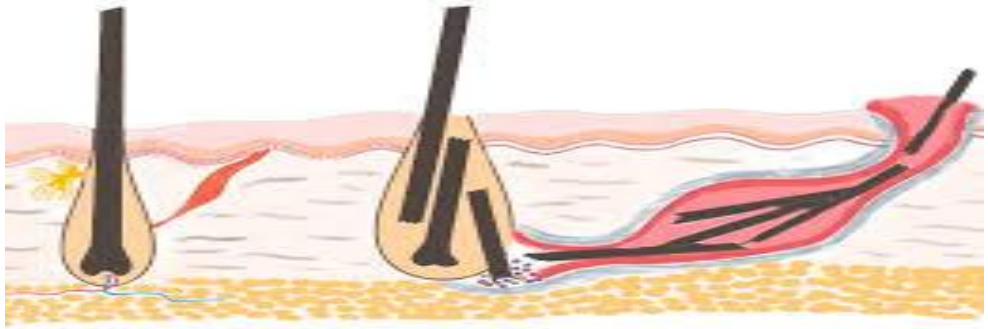
- Affects 15-30 years
- 3:1 male-to-female ratio
- Post puberty
- Sex hormones affect the pilosebaceous gland and change healthy body hair growth.

Predisposing Factors

- Kinking, coarseness hairs and their growth rate
- White >African/Asian
- Increased sweating
- Activity associated with sitting and buttock friction
- Deep natal cleft
- Poor personal hygiene
- Obesity
- Local trauma
- Family history of pilonidal disease

Drilling Affect

- Loose hairs are drilled, propelled, and sucked into the pilonidal sinus by friction and the movement of the buttocks whenever a patient stands or sits



- The negative pressure drives hair deeper into the sinus and appears to be exaggerated with a deep gluteal cleft

Presentation

- 50% of patients first present with a pilonidal abscess
- Pain and purulent discharge from the sinus tract are present 70-80%
- In the early stages prior to the development of an abscess cellulitis or folliculitis is present
- Recurrent pilonidal disease is most often observed after incision and drainage of a pilonidal abscess

Acute Surgery + Prevention

- 58% have complete healing after Pilonidal sinus abscess incision and drainage
- Skin excision can further reduce recurrence rate to 24%
- Skin care, avoiding skin maceration and regular hair shaving prevents hair from penetrating the healing scar
- For chronic cases whichever Surgical technique is used careful skin hygiene and hair exfoliation can not be overemphasised

Limberg Flap

Marking Limberg Flap

Excision of Pilonidal sinuses

Lifting of Limberg Flap

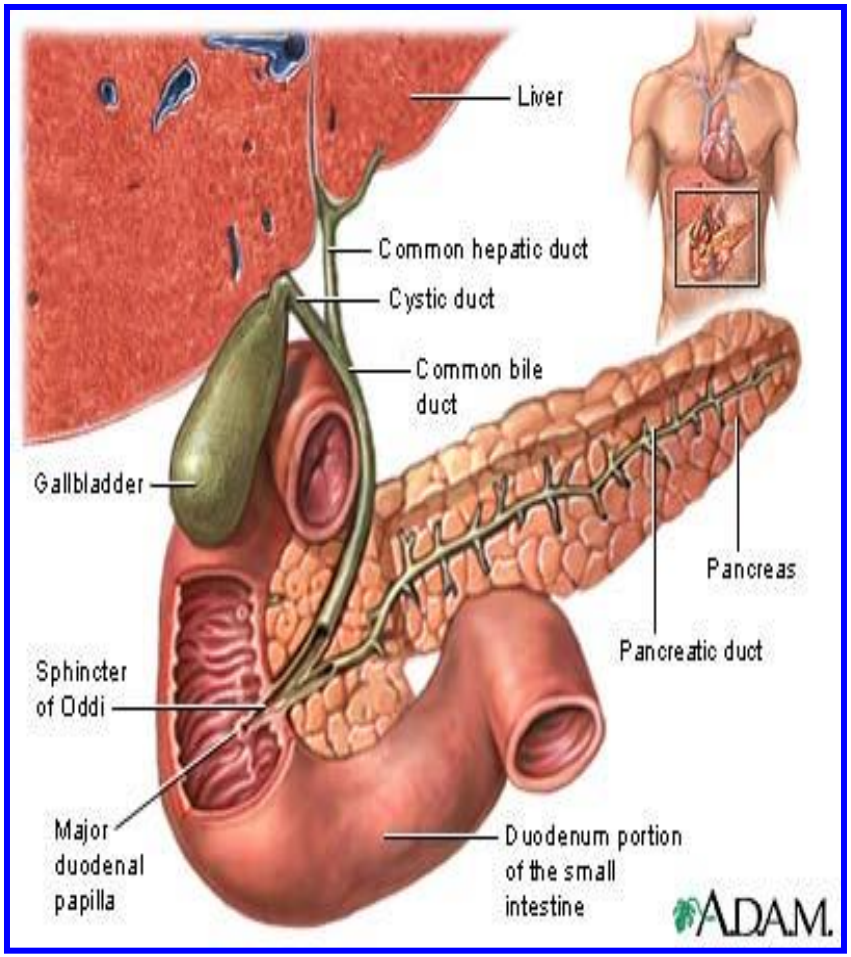
Final Product

47 Patients Post operatively

	Range
Operative time	80-120 Minutes
Hospital stay	48-72 Hours
Removal of stitches	14-16 Days
Drain removal	48-72 Hours
Not lying on the back	10-15 Days
Time off Work	**20-30 Days**
Time to walk normally	15-20 Days

Biliary Tract

- Intra and extrahepatic ducts
- Gallbladder (Concentrates & stores bile)
- Common Bile Duct



Gallstones – Pathophysiology

- Cholesterol, ordinarily insoluble in water, comes into solution by forming vesicles with phospholipids
- If ratio of cholesterol, phospholipids, and bile salts altered, cholesterol crystals may form
- Gallstone formation involves a variety of factors:
  - Cholesterol supersaturation
  - Mucin hypersecretion by the gallbladder
  - Bile stasis

Gallstones

- Higher among females than males (lifetime risk of 35% vs 20%, respectively)
- Increasing age.
- Positive family history.
- Sudden weight loss - eg, after obesity surgery.
- Loss of bile salts - eg, ileal resection, terminal ileitis.
- Diabetes - as part of the metabolic syndrome.
- Oral contraception - particularly in young women

Gallstones – Natural History

- 80% of patients, gallstones are clinically silent
- 20% of patients develop symptoms over 15-20 years
- About 1% per year
- Almost all become symptomatic before complications develop
- Biliary-type pain due to obstruction of the bile duct lumen
- Predictive value of other complaints (eg, intolerance to fatty food, indigestion) too low to be clinically helpful

Gallstones – Diverse symptoms

- Abdominal pain
  - Aching or tightness, typically severe and located in the epigastrium
  - May develop suddenly, last for 15 minutes to several hours, and then resolve suddenly
- Referred pain – posterior scapula or right shoulder area
- Nausea and vomiting
- Jaundice
- Pruritus:
  - Itching, typically worse at night.
- Fatigue
- Weight loss
- Miscellaneous:
  - Fatty food intolerance
  - Gas
  - Bloating
  - Dyspepsia

Complications of Gallstones

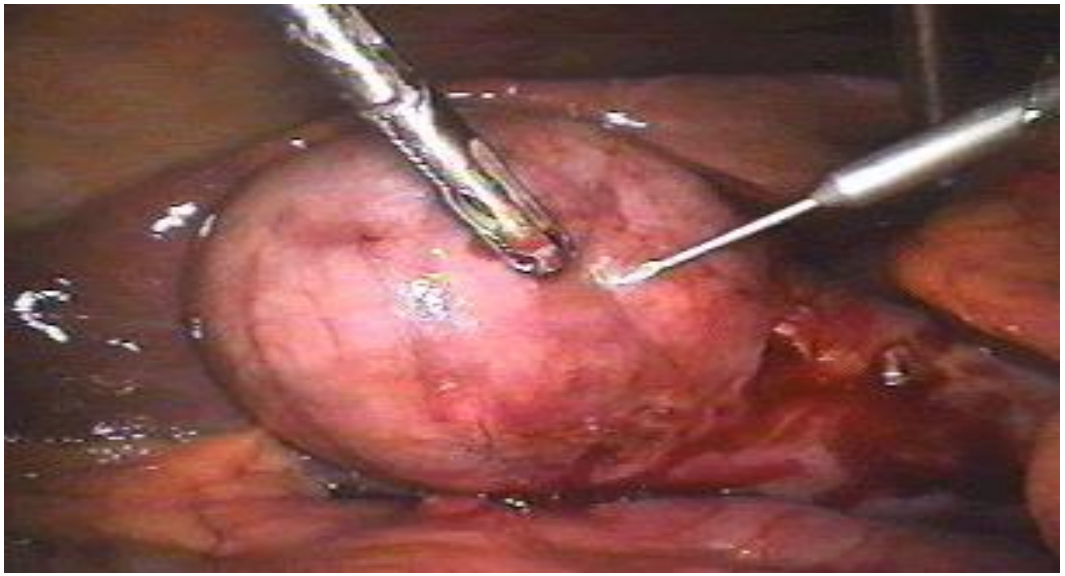
- In the gallbladder
  - Biliary colic
  - Acute and chronic cholecystitis
  - Empyema
  - Mucocoele
  - Carcinoma
- In the bile ducts
  - Obstructive jaundice
  - Pancreatitis
  - Cholangitis
- In the Gut
  - Gallstone ileus

Bile acid sequestrants

- Colesevelam, colestyramine are bile acid sequestrants used in the management of hypercholesterolaemia
- They act by binding bile acids, preventing their reabsorption; this promotes hepatic conversion of cholesterol into bile acids
- Bile acid sequestrants effectively reduce LDL-cholesterol but can aggravate hypertriglyceridaemia
- Treatment with bile acid sequestrants may be appropriate under specialist supervision if statins and ezetimibe are inappropriate, and when LDL-

Acute Calculous Cholecystitis

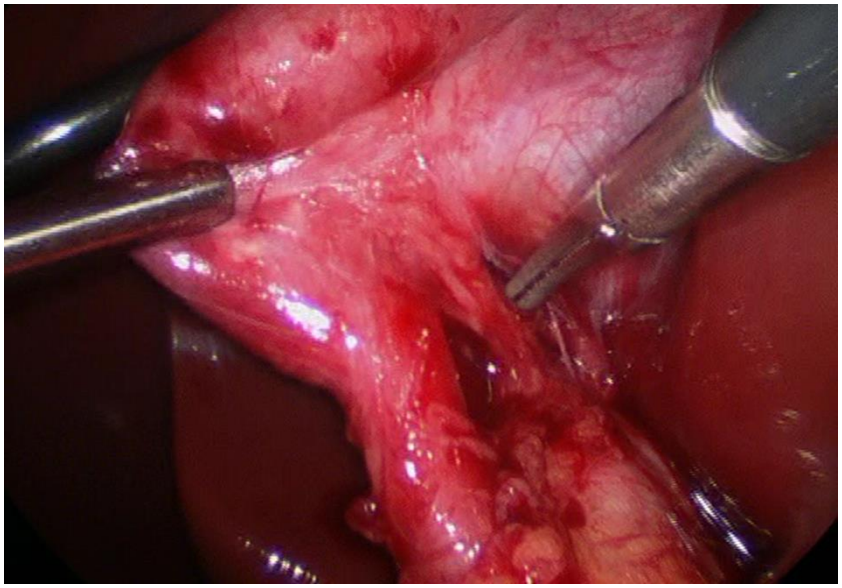
- Most patients have complete remission within 1-4 days.
- 25-30% of patients either require surgery or develop some complication



Acute Calculous Cholecystitis

- Symptoms
  - Right upper quadrant pain – continuous, longer duration
- Signs
  - Fever, Local peritonism.
  - Murphy's sign
    - 2 fingers on RUQ, ask patient to breathe in. Positive if pain and arrest of inspiration
- Investigations
  - Bloods – U&E, FBC, LFT, Amylase, CRP
  - Ultrasound of abdomen
    - Thickened gallbladder wall, pericholecystic fluid and stones
- Treatment
  - Nil by mouth
  - Analgesia
  - Intravenous antibiotics
  - Cholecystectomy

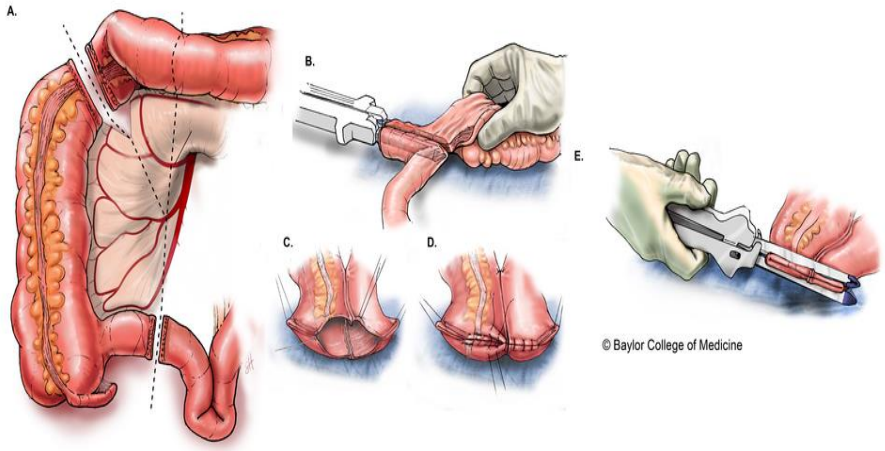
Laparoscopy Cholecystectomy



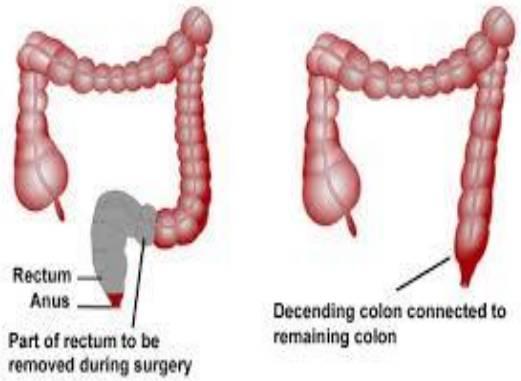
- Laparoscopic cholecystectomy standard of care
- Timing
  - Early vs interval operation
- Patient consent
  - Conversion to open procedure 10%
  - Bleeding

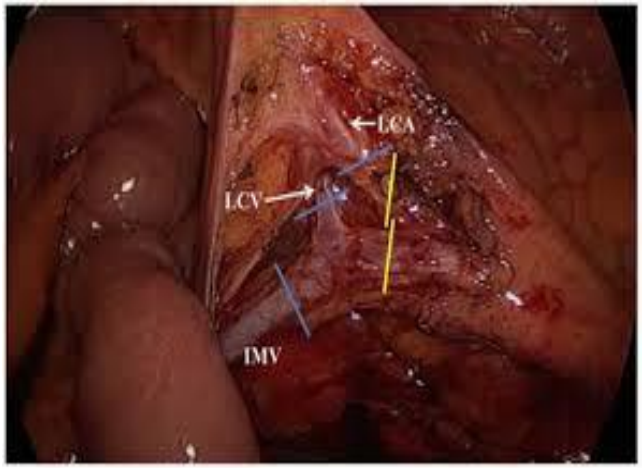
Advance Colorectal Laparoscopic Surgery

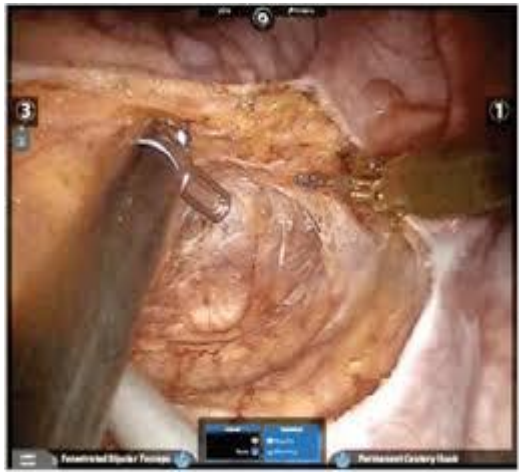
- Right Hemicolectomy

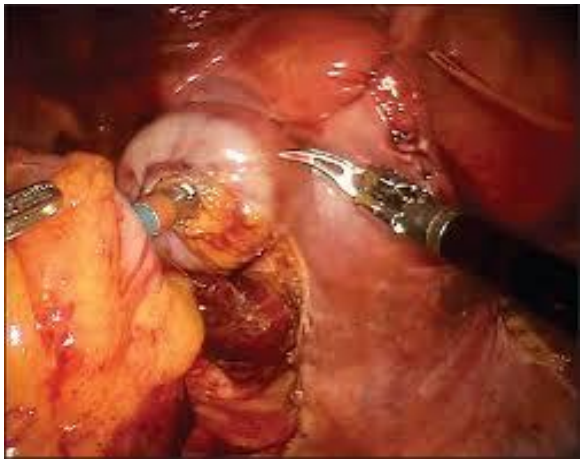


Anterior Resection



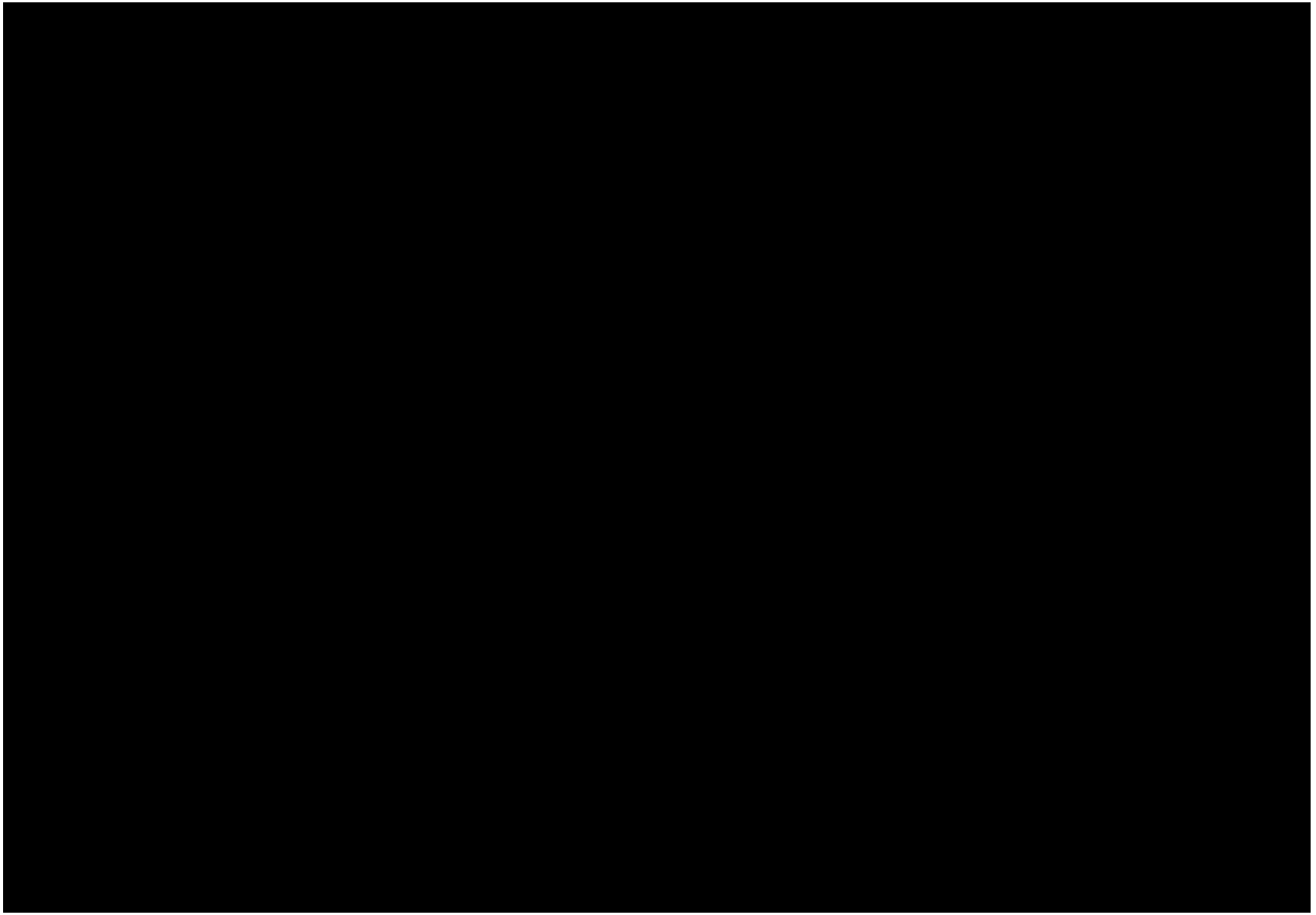






Future At Barnsley

- Laparoscopic Pelvic Floor Surgery
- Fistulas New Treatments



Thank You


5 minute break….

Barnsley Hospital Quality in Care

Barnsley Hospital NHS
NHS Foundation Trust

Barnsley Urology…
A Local Service for Local People

Stephen Mitchell MA MB FRCS (Urol) PhD

Clinical Lead, Division of General Surgery and Urology, Barnsley Hospital NHS Foundation Trust

An Image Problem?

Consultant Orthopaedic Surgeon

Consultant Urological Surgeon

Age - Old Problems

Stone disease

Voiding dysfunction

Female urology

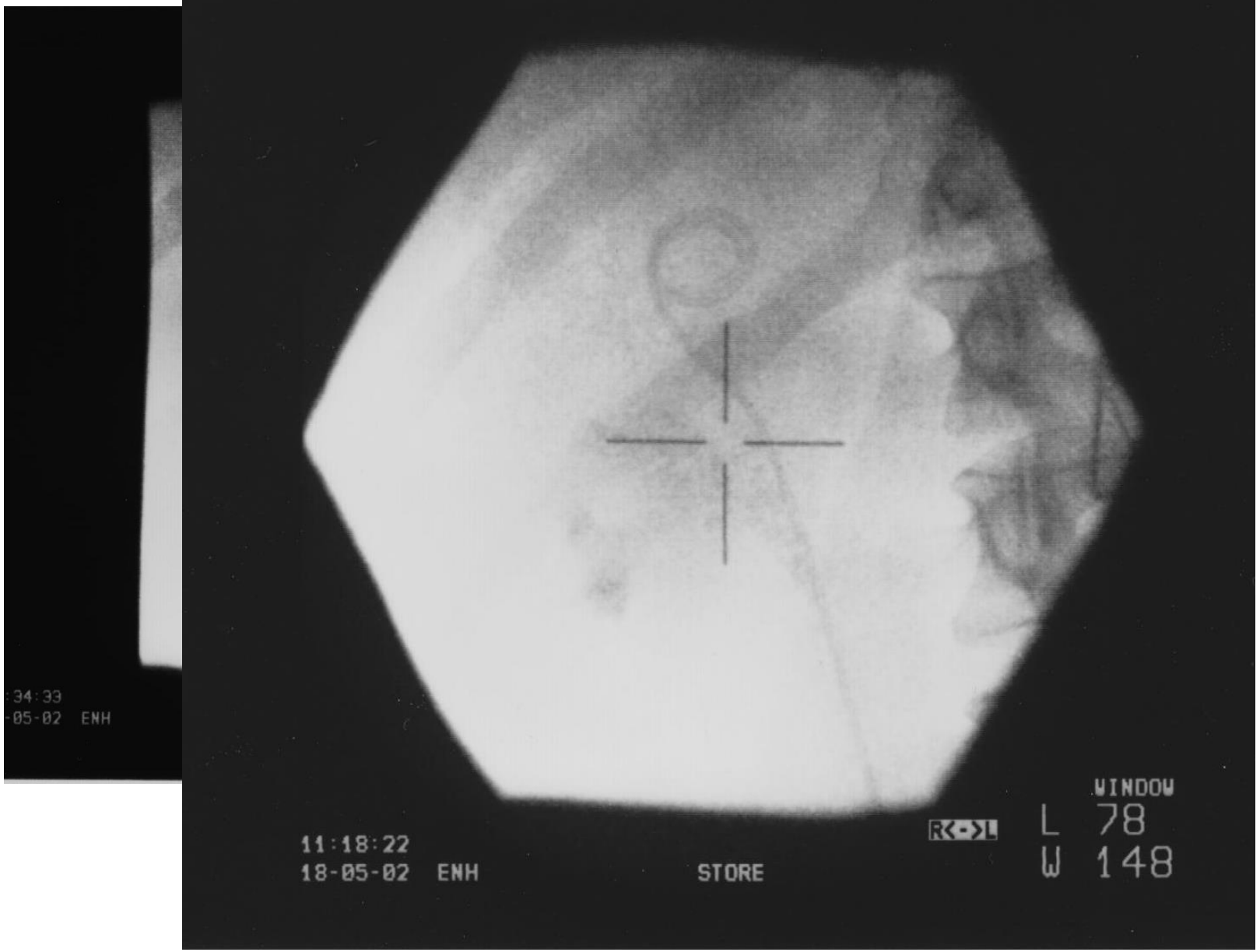
Urinary infections

Andrology

Paediatric urology

Urinary tract cancer

Third Generation Lithotripter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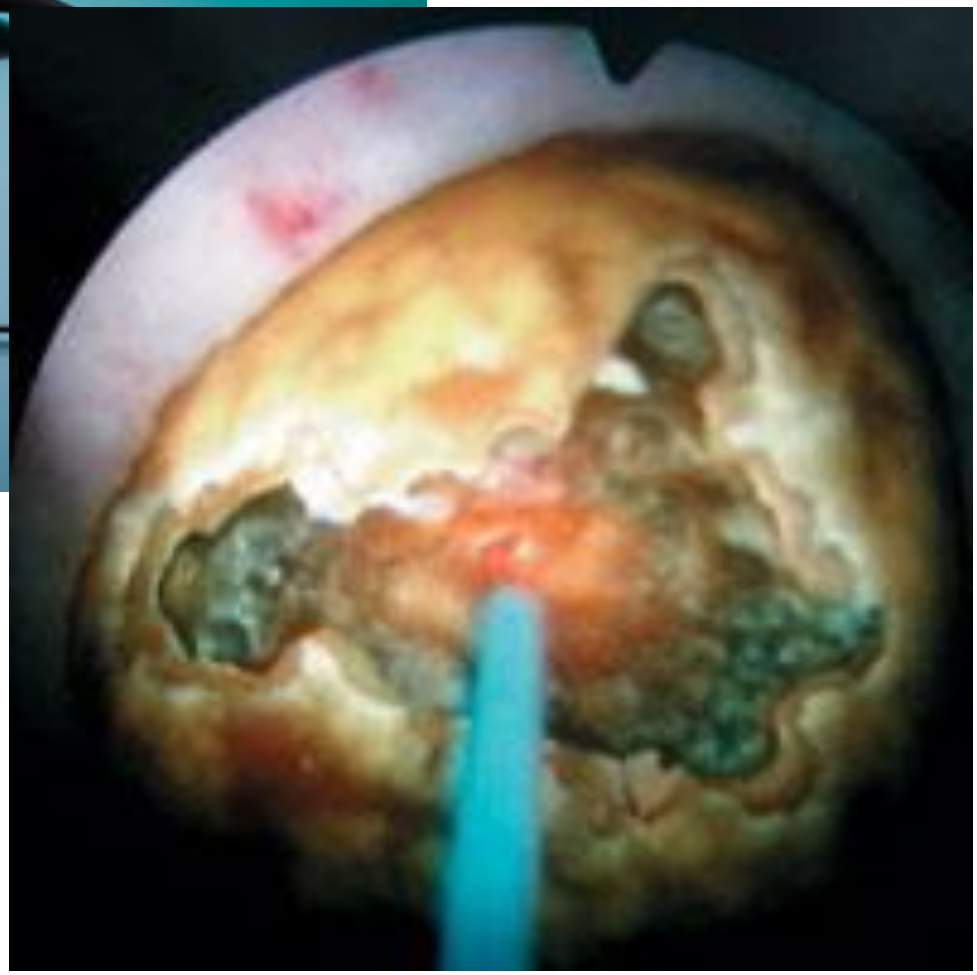
21st Century Solutions

Holmium laser 2140nm - absorbed by water

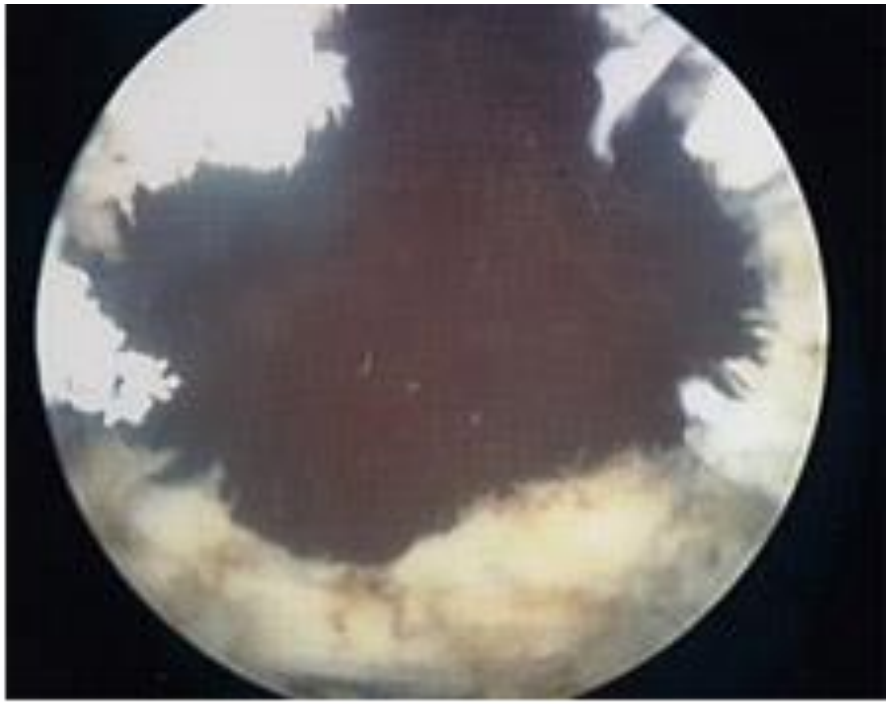
Dual energy output – 20W (stones); 100W (prostate)

Most efficient stone treatment available

“Gold Standard” for prostatectomy

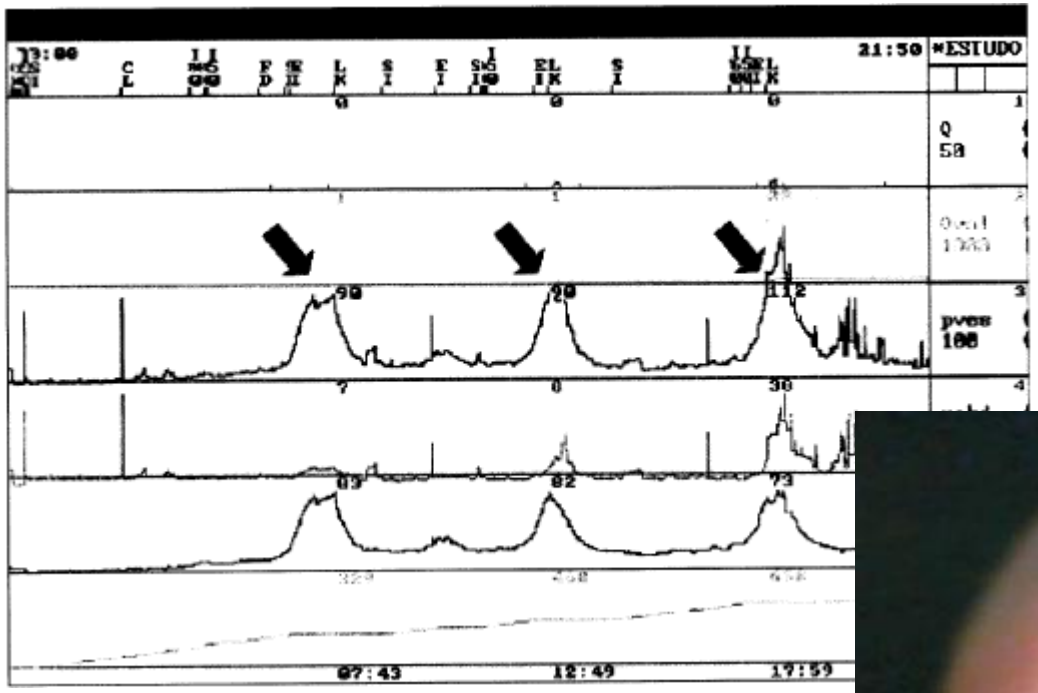


Before



After

Detrusor Overactivity



Recurrent UTIs