CASE SEVEN

Short case number: 3_8_7
Category: Gastrointestinal & Hepatobiliary Systems
Discipline: Surgery
Setting: General Practice
Topic: Anal fissures, anal malignancy and anal sexually transmitted infections [SDL]

Case

Marian Fisher, aged 25 years, presents complaining of severe anal pain. It started following an episode of constipation a week ago and has not improved. She can't open her bowels now as it is too painful. The pain is sharp and severe.

Questions

1. What further history and examinatgion would you undertake?
2. On examination you identify a tender anal tissue. How do anal fissures typically present?
3. How are anal fissures treated?
4. How do anal cancers present in terms of history and examination?
5. What are the principles of treatment of an anal carcinoma?
6. In a table briefly outline the clinical presentation of a) anal condylomas, b) anal chlamydial infection, c) anal gonorrhea, & d) anal HSV.

Suggested reading:

1. Henry MM, Thompson JN, editors. Clinical Surgery. 3rd edition. Edinburgh: Saunders; 2012. Chapter 25.
2. Garden OJ, Bradbury AW, Forsythe JLR, Parks RW, editors. Davidson's Principles and Practice of Surgery. 6th edition. Philadelphia: Churchill Livingstone Elsevier; 2012. Chapter 17.

ANSWERS

1. **What further history and examinatgion would you undertake?**
    - complete GIT history
    - thorough GIT examination
    - visual & digital rectal examination
    - proctoscopy

2. **On examination you identify a tender anal tissue. How do anal fissures typically present?**
    - most common cause of severe localized anorectal pain
    - pain dramatically increased during bowel movements
    - often associated with streaks of blood in the stool
    - anal fissures are painfil linear tears in the lining of the anal canal, below the level of the dentate line
    - most often located posteriorly in both sexes, but women also present with 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, leukaemia, sexually transmitted disease, malignacy)
    - fissures are secondary to local trauma, either from constipation or excessive diarrhoea
    - pain typically starts with defaecation and may persist from minutes to hours, disproportionate to the size of the lesion
    - bleeding usually minimal and bright red if present
    - on examination, gentle retration of the buttocks will reveal a tear at the anal verge
    - rectal examination is usually associated with severe pain and significant sphincter spasm thus not often well tolerated – consider whether formal per rectal examination will alter mangement or not
    - in cases of chronic recureent anal fissures, the classic triad of an external skin tag, a fissure xposing the internal shpincter fibres and a n hypertrphied anal papilla at the level of the dentate line is pathognomonic

3. **How are anal fissures treated?**
    - based on the duration and severity of the symptoms
    - acute anal fissures usually respond to conservative treatment, avoidance of diarrhoea or contipation, bulk laxatives to keep bowel movements atraumatic, and a mild non-narcotic analgesic Sitz baths may be helpful
    - if not resolving, GTN ointment (Rectogesic) is helpful as it reduces muscle spasm and aids healing by increased local blood flow. However headaches can be side effect.
    - if conservative treatment fails, or the fissure is chronic, surgery is recommended: in uncomplicated cases, the operative choice is lateral internal sphincterotomy – a small portion of the internal sphincter is cut, which releases the sphincter spasm, relives pain, and allows the fissure to heal. The operation carries a small risk of minor incontinence but >95% cure rate.
    - Botulinum toxin (Botox) is used in some centres instead of, or before surgery.

4. **How do anal cancers present in terms of history and examination?**
    - perianal & anal canal malignancies are rare, with less than 1% of the incidence of colorectal cancer

- there are essentially two types of anal cancers: epidermoid carcinoma (a generic type that includes squamous cell, basaloid, cloacogenic, mucoepidermoid, and transitional carcinomas) and malignant melanoma
- the anus is the third most common site for malignant melanoma (after the skin & eyes)
- either type of malignancy may cause pain, bleeding, or a lump
- delay in diagnosis is often a consequence of both patient & physician neglect
- in cases of malignant melanoma, lymph node involvement and widespread metastases are common at presentation – diagnosis often delayed because of lack of pigment in these lesions (amelanotic melanoma)
- examination should include palpation of the inguinal lymph nodes
- diagnosis depends on incision biopsy (could be excision biopsy if small <2cm)

5. What are the principles of treatment of an anal carcinoma?

- in the past abdominoperineal resection and permanent colostomy were the mainstays of treatment for both types of cancer
- in epidermoid anal cancer, now almost completely abandoned in favour of combined modality chemotherapy & radiation therapy
- using protocol of pelvic radiation with infusion of 5-FU and mitomyocin C, sometimes referred to as Nigro regime after American surgeon who introduced same in late 1970s
- 5-year survival rates now ~85%
- surgery (abdominoperineal excision of rectum, loosely caller abdominoperineal resection!) indicated in cases where residual tumour is present after radiation & chemotherapy.
- prophylactic inguinal node dissection is not recommended (unless clinically palpable nodes are present) because of high morbidity associated with this procedure
- synchronous inguinal node metastasis is an ominous sign and survival rates are poor
- conversely, metachronous inguinal lymph node involvement has a better prognosis
- inclusion of the inguinal LN's in radiation field decreases the incidence of metachronous LN involvement without adding much morbidity
- recurrence of anal canal cancer after combined modality therapy requires (salvage) abdominoperineal excision of rectum
- for malignant melanoma, the prognosis is dismal, regardless of the treatment
- for good-risk patients, abdominoperineal resection is a reasonable option to maximize survival

6. The clinical presentation of common anorectal sexually transmitted diseases

More than 20 sexually transmitted diseases can be present in the anorectal area. Therefore it is important to inquire about a complete sexual history inpatients with anorectal symptoms

anal condylomas

- caused by human papilloma virus
- most common anorectal infection affecting homosexual men
- may also be seen in heterosexual men and women – and even children
- transmission at birth and by close contact with infected patients has been reported
- in men, lesions found perianally, intraanally, on the penis and in the urethra
- in women, also in the vulva, vagina, cervix & urethra
- condylomata acuminata are opink or white papillary lesions
- vary in size from 1mm to large cauliflower like lesions
- they bleed easily
- difficulty in perianal hygiene may lead to pruritis ani

- discomfort and pain often present
- treatment includes various topical caustic agents (e.g. podophyllin) and local destruction (electrocoagulation, diathermy, liquid nitrogen cryotherapy, laser) techniques
- high recurrence rates (10% to 50%) with all local treatments
- interferon can be used
- new HPV vaccines promising – now available in Australia

anal chlamydial infection

- among the most common sexually transmitted disease
- chlamydial proctitis increasing in homosexual men
- treatment istetracycline or doxycycline (erythromycin in certain patients)

anal gonorrhea

- Neisseria gonorrhoeae infections of the rectum account for as many as 50% of the cases of gonorrhoea in homosexual men
- Evaluation and follow up require cultures of the urethra, rectum and pharynx
- most patients have nonspecific complaints, including, pruritus, tenesmus, and hematochezia
- sigmoidoscopy shows thick, yellow mucopurulent discharge, rectal mucosa ranges from normal to erythematous and edematous
- culture and gram stain are used for organism identification
- treatment is ceftriaxone 250 mg IM single stat dose

anal HSV

- herpes simplex virus type 2 causes herpetic proctitis
- infection acquired by direct inoculation
- approx. 15% of homosexual men with rectal symptoms have only this virus identified by rectal culture
- symptoms begin 4 to 28 days after inoculation, the majority of patients have pain and burning worsened by bowel movements
- some patients have a syndrome that is characterised by lumbosacral radiculopathy associated with sacral paraesthesia
- symptoms include impotence; lower abdominal, buttock and thigh pain; and urinary dysfunction
- lesions include vesicles with red areolae, ruptured vesicles, and aphthous ulcers
- the usual locations include the perianal skin, anal canal, and lower rectum
- patients who are seen in the relapsing stage may report a history of crusting lesions followed by healing
- scrapings for cytologic examination show intranuclear inclusion bodies and giant cells
- treatment is aimed at relieving symptoms: sitz baths, topical anaesthetics, and analgesics
- acyclovir (famvir) has benefit in the acute and relapse phases
- continuous suppressive therapy is warranted only in the most severe cases