STD & Genital tract ulcers

Chlamydia trachomatis

- Is the commonest bacterial sexually transmitted infection which is commonly asymptomatic.
- It is small bacterium an obligate intracellular pathogen
- Serovars D-K cause genital infections

Clinical feature

- 80% asymptomatic
- Postcoital and intermenstrual bleeding
- Lower abdominal pain
- Purulent vaginal discharge
- Mucopurulent cervicitis & or contact bleeding

Risk factors

- Age < 25 years
- Multiple sexual partners
- More with those using cocp
- Termination of pregnancy

Complication

- PID and subsequent Fitz-Hugh-Curtis syndrome
- Tubal damage, ectopic pregnancy, infertility, and chronic pelvic pain
- Transmission to the neonate causing conjunctivitis and pneumonia
- Arthritis and Reiter's

Diagnosis

- Endocervical, urethral, and vaginal swab for culture but are not sensitive
- ELIZA test on endocervical smear
- Direct fluorescent antibody test
Management

- Doxycycline 100 mg twice a day for 7 days
- Azithromycin 1 g as single dose
- Ofloxacin 400 mg daily for 7 days
- In pregnancy:
  - Azithromycin 1 g as single dose
  - Erythromycin 500 mg twice a day for 14 days
- Partner should be fully screened and treated

Gonorrhoea

- It is a STD
- Caused by gram negative diplococcus N.gonorrhoeae.
- Sites of infection are mucous membrane of urethra, endocervix, rectum, pharynx, and conjunctiva
- Vertical transmission from the mother to the fetus may occur during labour

Clinical Features

- 50% asymptomatic
- 50% increased or altered vaginal discharge
- 25% lower abdominal pain
- 12% dysuria
- Rare intermenstrual bleeding or menorrhagia due to endometritis

Clinical sign

- < 50% mucopurulent endocervical discharge and bleeding
- < 5% pelvic or lower abdominal tenderness,
- In the infant cause sever conjunctivitis (ophthalmia neonatorum)

Complications

- Spread of m.o. cause PID < 10%
- Haematogenous spread causing skin infection, arthralgia, and arthritis

Diagnosis

- Endocervical and urethral swab for culture is the most reliable diagnostic-test
**Recommended treatment**

- Ampectillin 1 g + probenecid 2 g as single dose
- Ciprofloxacin 500 mg as single dose
- Spectinomycin 2 g I.M. as single dose
- Azithromycin 1 g as single dose
- Ceftriaxone 250 mg as single dose
- Cefixime 400 mg as single dose
- More than 50% has concomitant chlamydial infection, therefore, treatment for the patient and partner should be done
- The partner should be screened for the infection and treated

**Genital ulcer disease**

Classification of genital ulcers

**Infective causes:**

- Herpes simplex
- Primary syphilis
- Lymphogranuloma veneri
- Chancroid
- HIV

**Non infective causes**

- Aphthous ulcer
- Trauma
- Skin disease
- Bahcet syndrome
- Sarcoidosis

**Genital herpes**

- STD
- Herpes simplex virus type 1 (HSV-1) [the usual cause of oro-labial herpes, or HSV-2

**Primary herpes**

- 3 weeks after acquisition
- Involve vulva, vagina and cervix
- Painful vesicle coalesce into multiple ulcers
- Periurethral involvement cause pain and retention of urine
• Diagnosis confirmed by culture, or electrical microscope of swab from the lesion
• Treatment:
  ➢ analgesia, lignocaine gel
  ➢ aciclovir 200 mg 5 times a day for 5 days

**Recurrent herp**

• Following primary infection, virus colonizes the neurons in the dorsal root ganglia, causing a latent infection.
• The spectrum of severity is:
  ➢ asymptomatic shedding of the virus.
  ➢ Ulcers resembling small abrasions on the vulva.
  ➢ Localized clusters of vesicles & ulcers 1-2 cm in diameters
  ➢ Wide spread or chronic ulceration, like primary one seen in pregnant women.
  ➢ Large atypical chronic ulcers in immunosuppressed patient.
  ➢ diagnosis by swabbing the ulcer
  ➢ patient usually has recurrent episodes requesting treatment, by prescribing long term suppression with aciclovir 400 mg twice a day

**Complications**

• Psychological distress
• Neurological involvement like aseptic meningitis and transverse myelitis
• Herpes keratitis causing corneal scarring and blindness.

**Syphilis**

**Primary syphilis:**

• First manifestation of syphilis which is painless ulcer (chancre) at the site of inoculation
• The chancre is in form of shallow punched-out ulcer with well defined edges & smooth shiny floor with rubbery consistency & exudes serous discharge.
• Usually single but can be multiple
• regional lymph nodes enlargement
• common site is cervix
• it arise 3-6 weeks after infection
• resolve spontaneously without treatment after few weeks
• diagnosis done by demonstrating the organism by darkfield microscope from the ulcer serum exudates
• specific serological test like fluorescent terponemal antibody (FTA) test, and treponema pallidum haemagglutination test (TPHA) or non specific test like venereal disease reference laboratory (VDRL) test can be used, although it may be negative.

Secondary syphilis
• occur 6 months after the disappearance of chancre
• systemic non itchy maculopapular rash, involving the palms and soles
• florid lesions resembling warts (condylomata lata) mainly in peri-anal area
• mucous patch and linear ulcers (snail track) on the mucosal surfaces
• generalized lymphadenopathy
• alopecia, arthritis and meningitis
• diagnosis by serological test which are positive with VDRL titer 1/32 or more

Tertiary syphilis
• A firm elastic tumours may occur in skin, mucosa, bones & viscera called gummata
• neurosyphilis manifest within 5 years of infection in form of meningovascular syphilis with stroke
• 20% has cardiovascular syphilis like thoracic aortic aneurysm or aortic regurgitation.

Treatment
• Treatment of choice is penicillin like procaine penicillin 1.2 MU daily i.m., for 12 days
• Doxycycline 100 mg twice a day for 14 days
• Erythromycin 500 mg, four times a day for 14 days
  o There is risk of vertical transmission, causing intrauterine death or severely affected neonate, therefore; neonate at risk should be evaluated and received penicillin injection
  o Less severe infection occur late in life manifest as a congenital syphilis including nerve deafness, interstitial keratitis, and abnormal teeth

Lymphogranuloma venereum
• It is caused by specific serovars of Chlamydia trachomatis (L1- L3)
• Small superficial ulcer slowly increase in size
• Enlarged inguinal lymph nodes which can matted together and discharging pus forming bubo
• Treatment by tetracycline and surgical interference
**Chancroid**
- Caused by ducreyi bacilli
- Small, shallow ulcers, multiple and painful with irregular edge
- Localized lymphadenopathy
- Treatment co-trimoxazole or tetracyclin

**Granuloma inguinale**
- Caused by klebsiella granulomatis
- Discrete papules on the skin or vulva which enlarge and form beefy red painful ulcers
- Healing end with fibrosis lead to lymphoedema and elephantiasis
- Treatment by tetracycline

**Anogenital warts**

**Aetiology:**
- Warts are benign epithelial skin tumours are caused by the human papillomavirus (HPV), subtypes 6 and 11
- The mode of transmission is sexual, but may be transmitted perinatally and also from digital lesions

**Clinical features:**
- It may cause irritation or present with lumps
- It can occur at any time in the genital area
- Occult lesion may occur in the vagina and cervix
- Warts may be exophytic, single or multiple, keratinized or not keratinized, broad base or pedunculated, and some are pigmented
- Diagnosis by clinical examination and biopsy if there is any doubt. Speculum examination for cervix and vagina should be done

**Management:**
- Treatment is painful, uncomfortable, with failure and relapse rate
- Soft poorly keratinized warts respond to podophylin, and trichloroacetic acid
- Keratinized lesion treated with physical ablative therapies like cryotherapy, excision and electrocautery
- In pregnancy podophylin should be avoided and we should reduce neonatal exposure to the virus