SYPHILIS

Syphilis is an infectious disease caused by the spirochete *Treponema pallidum*. It almost always is transmitted by sexual contact with infectious lesions, but it also can be transmitted in utero and via blood transfusion.

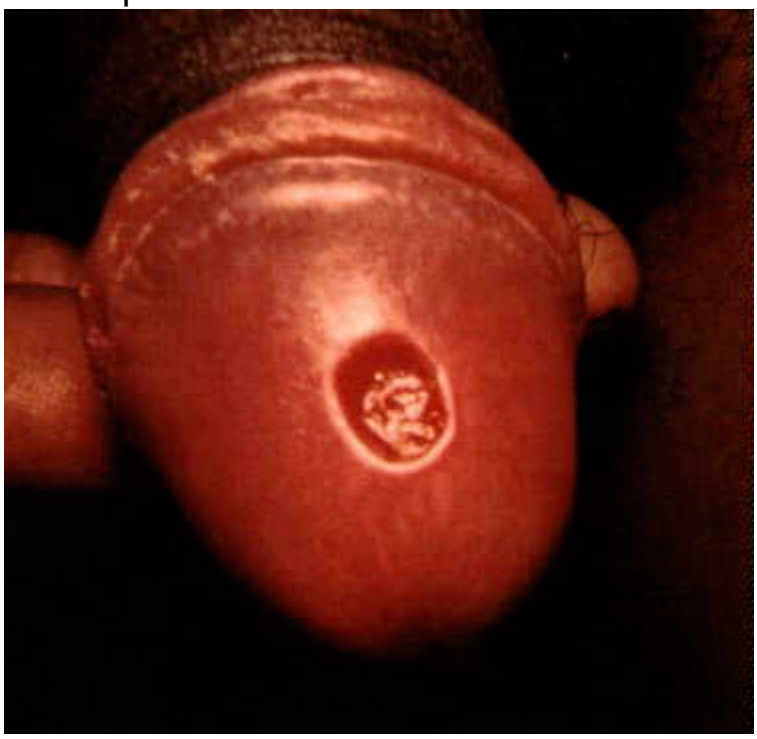
Classification

Syphilis is classified as acquired or congenital. Acquired syphilis is divided into **early** (primary, secondary and early latent < 2 years of infection) and **late** (late latent > 2 years and tertiary) syphilis. Congenital syphilis is divided into early (first 2 years) and late including stigmata of congenital syphilis.

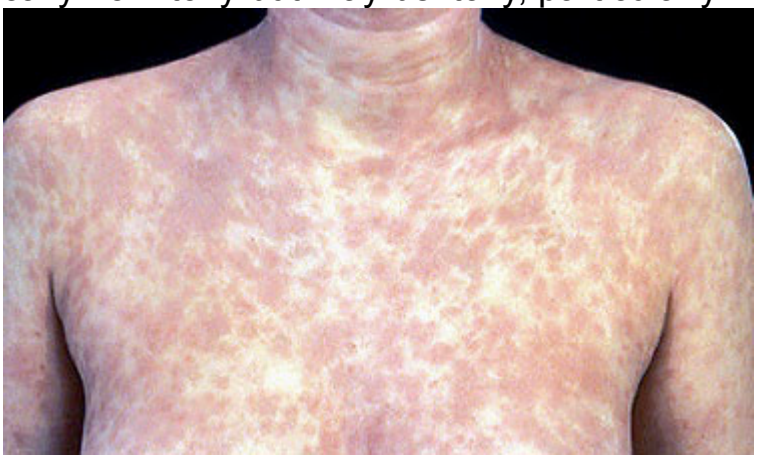
Clinical Features

Primary syphilis is characteristed by an ulcer (the chancre) and regional lymphadenopathy. The chancre is classically in the anogenital region, single, painless and indurated with a clean base discharging clear serum. However chancres may be atypical: multiple, painful, purulent, destructive, and may be extragenital. Any anogenital ulcer should be considered to be syphilitic or herpetic

unless proven otherwise.



Secondary syphilis is characterised by multisystem involvement within the first two years of infection: generalised polymorphic rash often affecting the palms and soles, condylomata lata, mucocutaneous lesions, generalized lymphadenopathy; less commonly, patchy alopecia, anterior uveitis, meningitis, cranial nerve palsies, hepatitis, splenomegaly, periosteitis and lomerulonephritis. The rash is classically non-itchy but may be itchy, particularly in dark-skinned patients.



Early latent syphilis is characterised by positive serological tests for syphilis with no clinical evidence of treponemal infection within the first two years of infection.

Late syphilis is defined as infection with *Treponema pallidum* of more than two years' duration. Late syphilis can be broadly divided into two groups**. Late latent syphilis** is infection of more than two years duration diagnosed on serological testing with no symptoms or signs (including cerebrospinal fluid (CSF) abnormalities) of late manifestations of syphilis. **Tertiary syphilis** consists of three major clinical manifestations, which may co-exist:

- **neurosyphilis**; Asymptomatic neurosyphilis is

late syphilis with abnormal CSF examination but with no associated neurological symptoms or signs. Symptomatic neurosyphilis is usually due to direct CNS infection or associated endarteritis. The most common manifestations are related to dorsal column loss (tabes dorsalis) and dementia (general paralysis of the insane/GPI) and meningovascular involvement.

- **Cardiovascular syphilis** is characterised by an aortitis, which usually involves the aortic root causing AR, aortic aneurysm and angina.
- **Gummata** are inflammatory fibrous nodules or plaques, which may be locally destructive. They can occur in any organ but most commonly affect bone and skin.

Diagnosis

1. Demonstration of *Treponema pallidum* (From lesions or infected lymph nodes in early syphilis)
    - Dark field microscopy
    - Direct fluorescent antibody (DFA) test
    - PCR
2. Serological Tests for Syphilis

- Cardiolipin (reaginic) tests: Venereal Diseases Research Laboratory (VDRL) or carbon antigen test/rapid plasma reagin test (RPR)
- · Specific tests: treponemal enzyme immunoassay (EIA), *Treponema pallidum* haemagglutination assay (TPHA),*Treponema pallidum* particle agglutination assay (TPPA).

Treatment

- All patients with syphilis should have a screen for other STIs (recommended to screen for HIV in patients with late syphilis)
- IM Procaine/Benzathine Penicillin (Doxycycline for those patients with penicillin allaergy or refusing IV therapy).
- CSF examination should be considered for individuals with neurological (including ophthalmological) symptoms or signs, and people with gummata and cardiovascular disease.
- All patients with cardiovascular syphilis should be reconsidered for corticosteroid cover at the start of therapy (see Jarisch-Herxheimer reaction).
- Management of contacts