Sexual Transmitted Disease

Sexual transmitted disease

- STID are caused by a broad range of pathogens, have a high physical and psychosocial morbidity affect both sexually active couples and neonate born to an infected mothers they are classified according to the causative pathogen into

1. Viral infection disease;

- Herpes genitalis HSV 1&2
- Molloscum contagiosum mcv
- Condylomata accuminata HPV
- Hepatitis B HBV
- AIDS HIV

2. Bacterial infection disease

- Gonorrhea — Neisseria Gonorrhae
- Syphilis — treponema pallidum
- Chancroid — hemophilus ducreyi
- Bacterial vaginosis — gardenella vaginalis and mycoplasma hominis
- Enteric disease — salmonella spp, shigella spp

3. chlamydial infection diseases

- Non gonococal urithritis Chlamydia trachomatis
- Lymphogranuloma venereum Chlamydia trachomatis type L

4. Protozoal infection diseases

- Trichomoniasis vaginalis — trichomonus
- Giardiasis — giardia lamblia
- Ameabiasis hystolotica — Entameba
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5. fungal infection disease

- Vulvovaginal candidiasis candida albicans

6. parasitic infection diseases

- scabies sarcoptes scabiei
- pediculosis phthirus pubis

The other classification which depend on the clinical presentations

1. disease characterize by genital ulcer

   -genital herpes, chancroid, syphilis, LGV

2. disease characterize by vaginal papules;

- -genital wart
- -molluscum contagiosum

3. disease characterize by vaginal discharge;

- Vulvovaginal candidiasis, trichomoniasis, bacterial vaginosis, gardenella vaginalis and mycoblasma homonis

4. disease characterize by cervicitis and urethritis

Nongonococal urethritis, gonococal infections, mucopurulent cervicitis and chlamydial infections

- 5. miscelleneous disease; pelvic inflammatory disease, sexually transmitted enteric infection and ectoparasitic infection

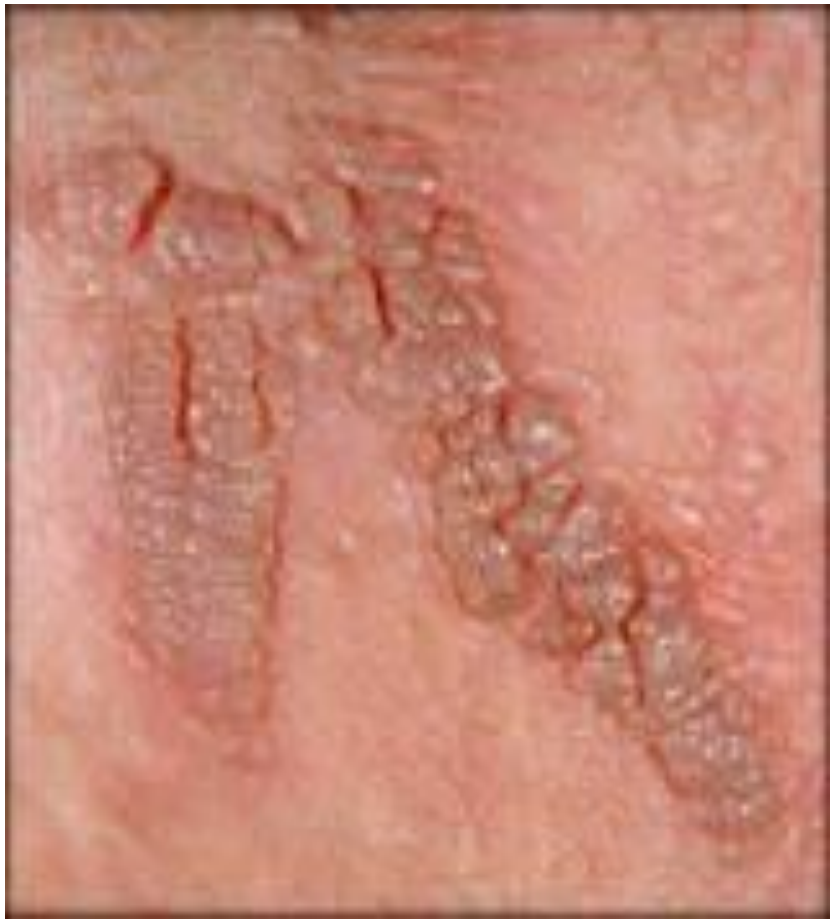
- 6. HIV, AIDS

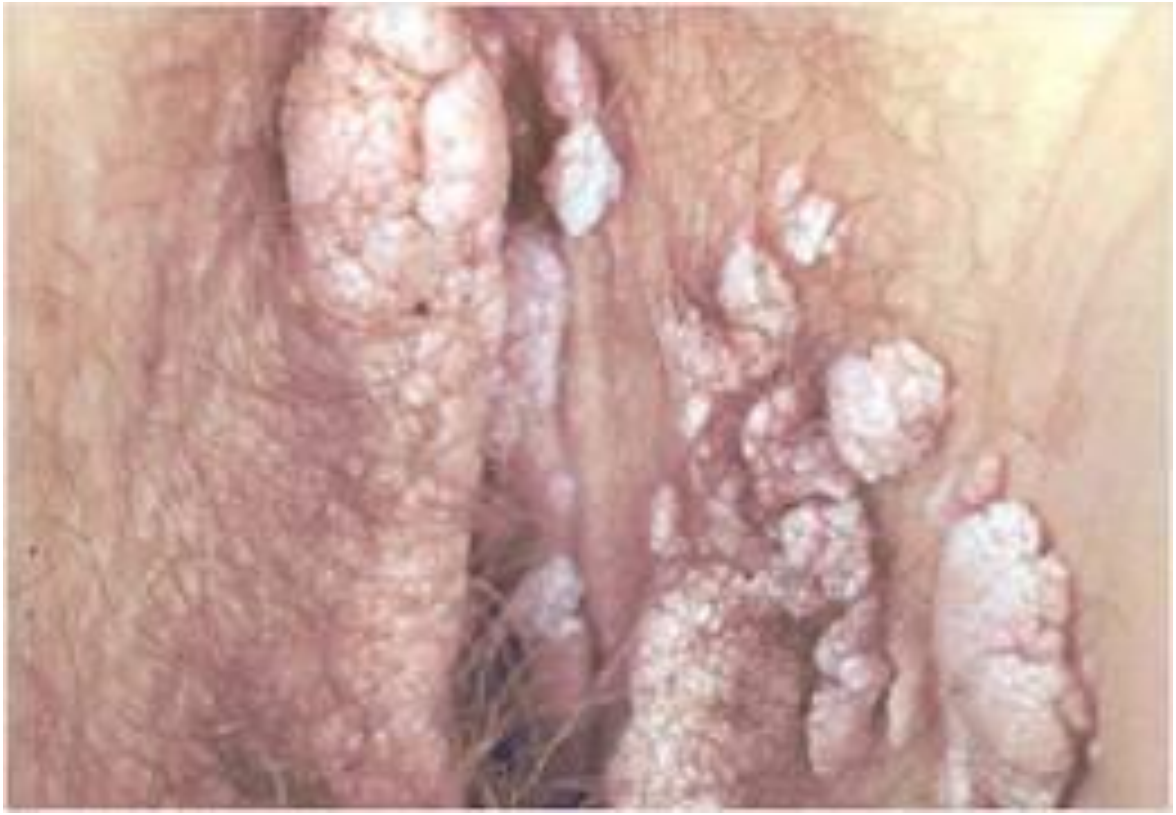
Genital wart

- It is the most common STD seen by dermatologist if it is caused by HPV 6,11 it result in benign lesion and if it is caused by 16,18, 31, 33, 35 it is strongly associated with anogenital dysplasia and sequamous cell carcinoma, common in sexually active adult, transmitted through sexual contact, microabrasion occur on an epithelial surface allowing virion transmission from infected person to the basal cell layer of non infected person

- mother can transmitted the infection to the neonate during delivary result in external genital wart and laryngeal papillomatosis. Most infections are asymptomatic, subclinical and unrecognized
- There are 4 clinical types;

- 1. small papules .
- 2. flower – floret lesions.
- 3. flat topped papules or plaques (cervix).
- 4. keratolytic lesion, either solitary lesion , scattered or confluent masses pink or skin colored found on labia ,clitoris, periurethral, perineum, vagina and cervix in female and glans penis, shaft, frenulum in male they have the risk to develop scc in situ or invasive scc.





- **DDX;**
- 1. Inflammatory dermatosis, lichen planus, lichen nitidus, molluscum contagiosum, condylomata lata, scabietic nodule, folliculitis
- 2. Benign tumors, skin tag, seborrhiec keratosis, pilar cyst,
- 3. Malignant tumors SCC in situ,invasive SCC

- **Diagnosis**
- 1. Pap smear done annually to every woman
- 2. Biopsy indicated if diagnosis is uncertain, if there is no response to standard therapy, in immune compromised patient to rule out scc in situ or invasive scc and to detect type of HPV
- 3. serological test to rule out coinfection with T. pallidum, HIV should be done in all patient with genital wart
- 4. aceto whitening is indicated for subclinical lesion

Coarse and prognosis

- HPV is highly infectious with incubation period of 3 weeks-8 months, external genital wart develop after 2-3 month in most patients
- Genital wart may resolve spontaneously in 20-30% of patient
- Subclinical infection may persist for life
- Recurrent infection may occur in immune competent as well as with immune compromised; condylomata may recur due to persistence of latent HPV in normal appearing perilesional skin or from reactivation of subclinical lesion rather than from reinfection by sexual partner

- In pregnancy genital wart increase in size and number, show increase vaginal involvement and increase rate of secondary bacterial infection
- Children delivered vaginally to mother with infection are at risk to develop recurrent respiratory papillomatosis lator in life

- **Management**
- Use of condom to prevent transmission to uninfected partner
- Removal of exophytic wart reduce rate of transmission, ameliorate sign and symptoms, improve self esteem, and induce wart free period but not cure or irradicate HPV

Therapies

- 1. Imiquimod cream 5% applied 3 times weekly for 16 weeks
- 2. Podofilox 0.5% solution and gel applied on lesion and normal skin in between by cotton swab twice daily for 3 days fallowed by 4 days of no therapies could be repeated as necessary and the treatment contraindicated during pregnancy.
- 3. Podophyline 10-25% in compound tincture of benzoin
- 4. TCA & BCA 80-90% applied only to wart and repeated if necessary
- 5. Surgical removal by scissor excision, curettage, electrocauterization and cryosurgery (Periurethral , anal)

Mulloscum contagiosum

- MCV is double stranded DNA virus related to pox virus which does not develop latency like herpes virus, clinically appear as 2-5m umbilicated white dome shaped papules involve genitalia in adult and children if there is sexual abuse. Individual lesion last 2-8 weeks and autoinoculation causes new lesions to appear and the duration of infection can be up to 8 months


SFS

- **Diagnosis:**
- Through microscopic examination of soft material obtained from curate samples taken from the umblicated part of the lesion deal with potassium hydroxide preparation show the inclusion bodies within keratinocyte.

Treatment

- lesions should be treated to prevent spread through sexual contact.
- Curratage should be avoided in cosmetically important area.
- Cryosurgery
- Antiviral and immune modulatory therapies: imiquimod cream 5% (aldara) three times daily for five consecutive days per week for 4 weeks.
- Cantharidin
- Potassium hydroxide
- Oral immuno modulatory drugs like cimitidine tablet 30 mg/kg/day, zinc sulphate capsule in dose of 10 mg /kg /day
- LASER therapy
- TCA peel 35% repeated every 2 weeks if needed

Genital herpes

- Genital herpes it is a recurrent lifelong STD caused by HSV2 more than HSV1 characterized by symptomatic and asymptomatic viral shedding , it is strongly related to life time numbers of sexual partners , number of years of sexual activity , male homosexuality, black race, female gender and history of previous STD. lesion distributed on labia majora, minora, perineum and inner thigh in female , glance penis ,shaft and scrotum in male . It is either primary or recurrent infection.

- **Primary infection**
- Most patients (90%) are asymptomatic , 10% are symptomatic with fever headache , malaise and myalgia peaking within 3-4 days after onset of lesions . pain , itching , dysuria, lumber-radiculitis and vaginal ,urethral discharge associated with tender inguinal lymphadenopathy during second and third weeks.

Clinically an erythematous plaques followed by vesicles evolved to pastules and become eroded and may enlarged to ulceration heal within 2-4 weeks result in post inflammatory hypo or hyper pigmentation

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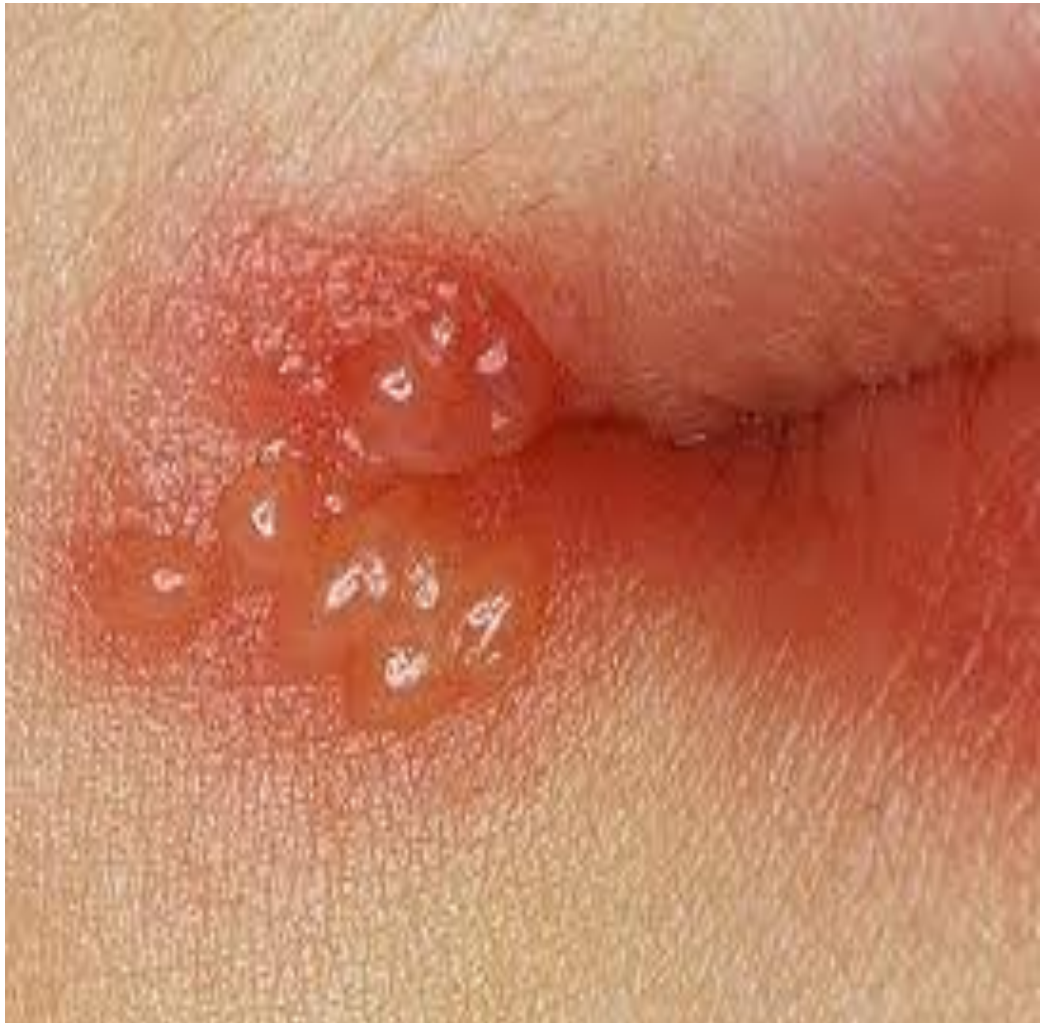
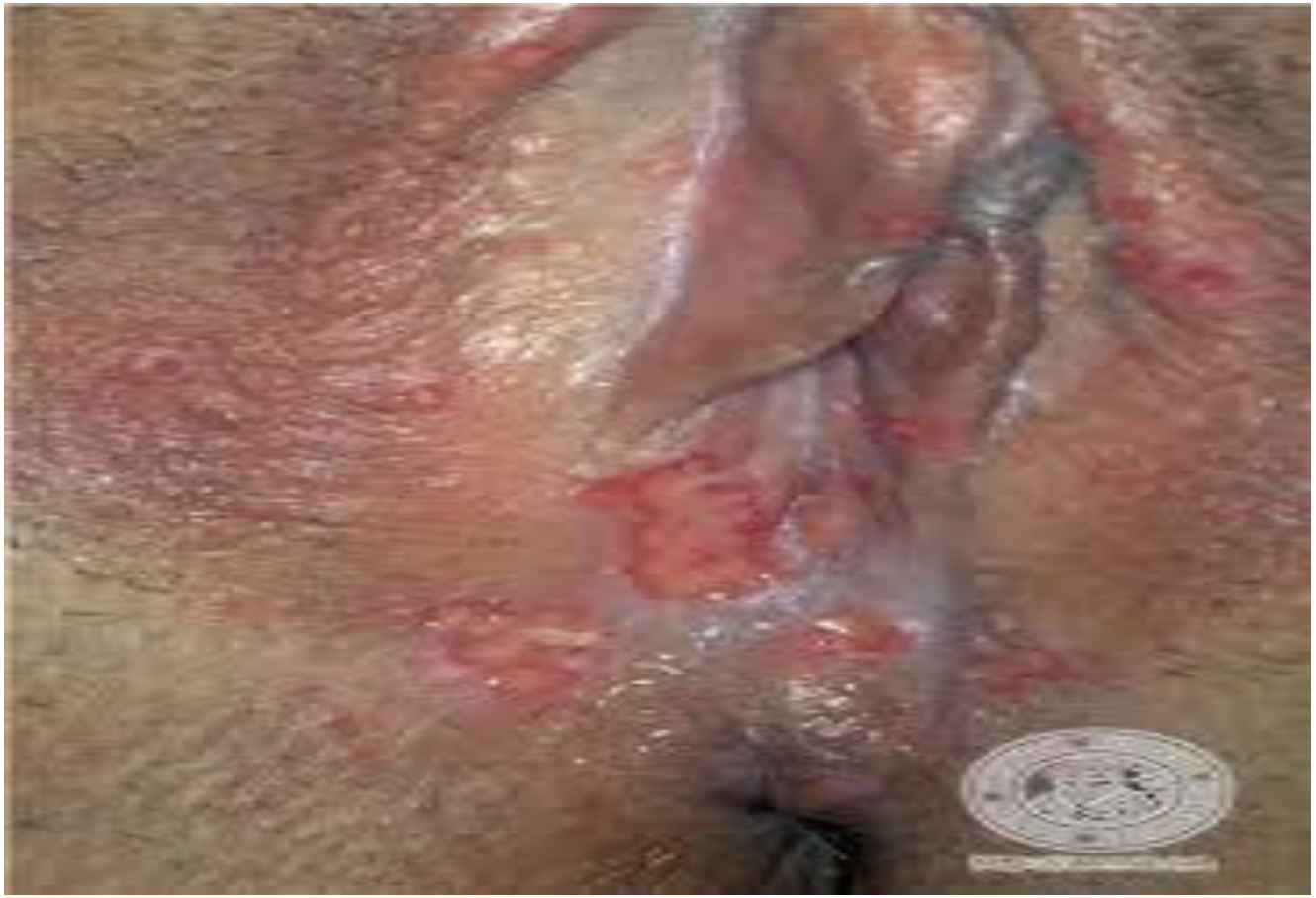
- **Recurrent GH**: symptom and sign are minor than the primary lesion, small plaques eroded and heal within 1-2 weeks.





- **Differential diagnosis OF ulcerative herpes genitalis :**
- Trauma, candidiasis , syphilitic chancre , FDE and chancroid.

Diagnosis must be confirmed by viral culture and DFAT (Direct Fluorescent Antibody Test) or serology because of atypical presentation and asymptomatic shedding

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Management of genital herpes

- **Prevention**
- Abstinence from sexual activity while the lesion is present
- Use of condom
- Natural history of the disease with asymptomatic viral shedding and sexual transmission should be explore to partner
- Risk for neonatal infection should be explain
- Infant born to women with asymptomatic shedding have reduced birth weight and increase prematurity so sero testing may be recommended at first prenatal visit.

- Topical antiviral therapy of no significant efficacy

- Oral antiviral therapy provide partial control of symptoms and signs of 1st episode but neither eradicate latency nor affect subsequent risk when drugs is discontinue
- Acyclovir 400 mg /three times daily / 7-10 days
- Valacyclovir 400mg/ three times daily / 7-10 days
- Famciclovir 250 mg / three times daily / 7-10 days
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- In case of herpes proctitis 400 mg / five times daily / 10 days of acyclovir
- IV acyclovir 5mg /kg / every 8 hours for 5-7days or until clinical resolution is attained used in immune compromized patients or disseminated disease (encephalitis, hepatitis , pneumonia) and need hospitalization

Syphilis

- It is human infectious disease caused by bacterium treponema pallidum which can infect any organ causing an infinite number of clinical presentations transmitted by
- direct contact with a lesion during the primary or secondary stage
- in utero transplacental route
- during delivary as the baby passes through an infected canal
- by blood products
- Most common during 20-39 years. Male more than female 2/1 or 4/1, more in Africans, Americans and Hispanics

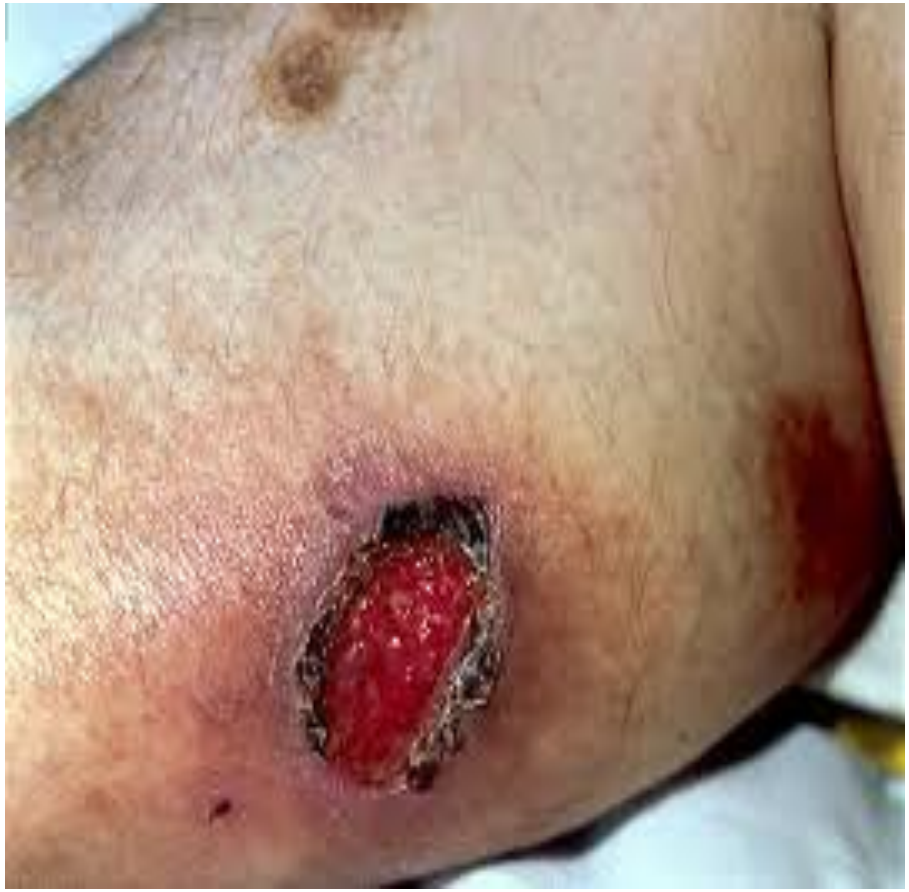
Clinical stages of syphilis

- primary syphilis
- secondary syphilis
- a- early latent syphilis one year duration (any period between primary and secondary) . all above are infectious syphilis
- b- Late latent syphilis ≥ one year duration
- Syphilis of unknown duration : late (tertiary) syphilis : cutaneous , vascular , neurological
- Congenital syphilis : acquired in utero or perinatally early and late clinical finding

Primary syphilis

- Cc by papules that undergo ischemic necrosis and eroded forming painless, clean , hard indurated ulcer associated with painless, hard, discrete regional lymphadenopathy, chancre heal within 3-6 weeks.
- DDX

  Genital herpes, traumatic ulcer, fixed drug eruption, chancroids and lymphogranuloma venereum.
- Dx clinical suspecision, DF microscopy, or serology

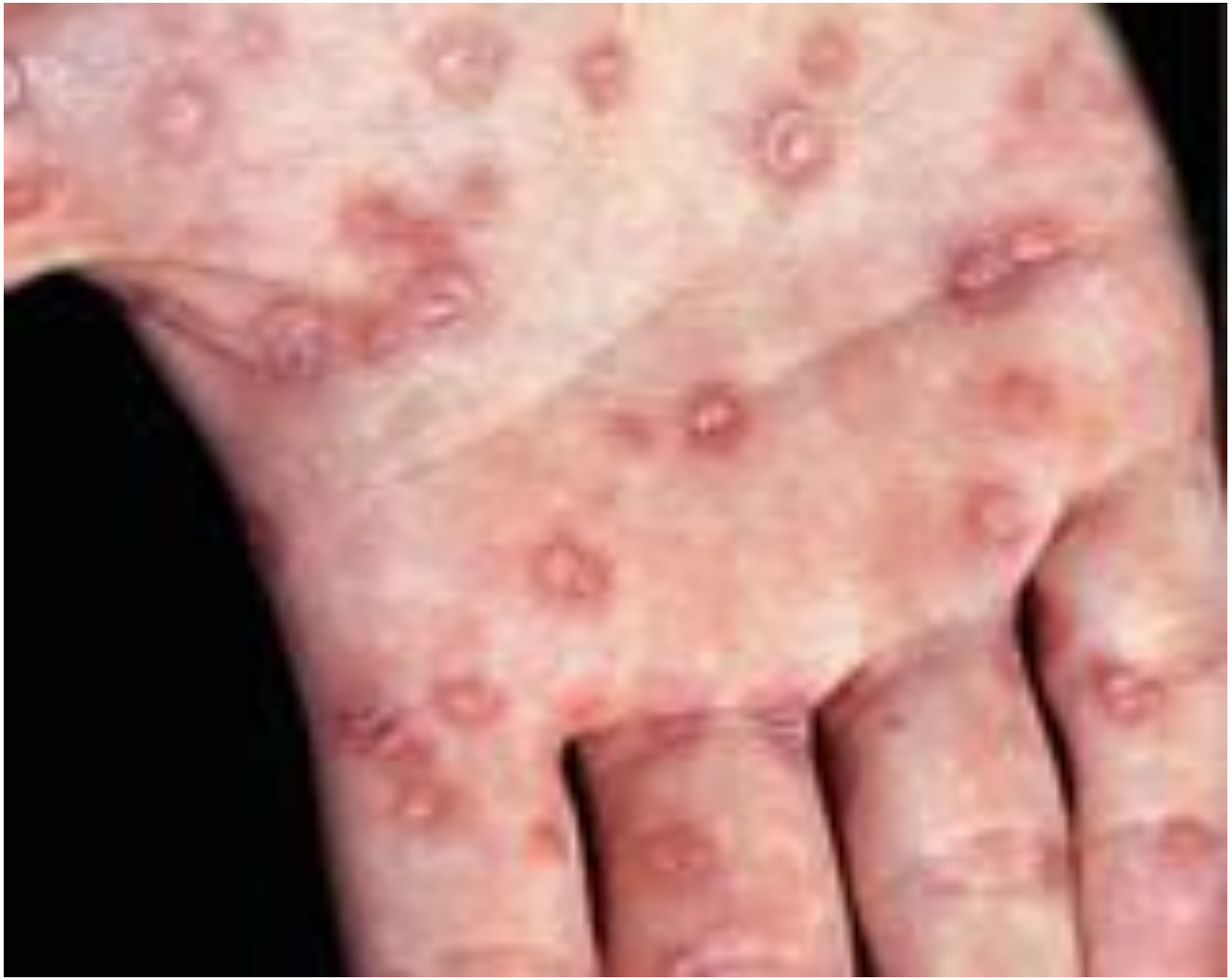


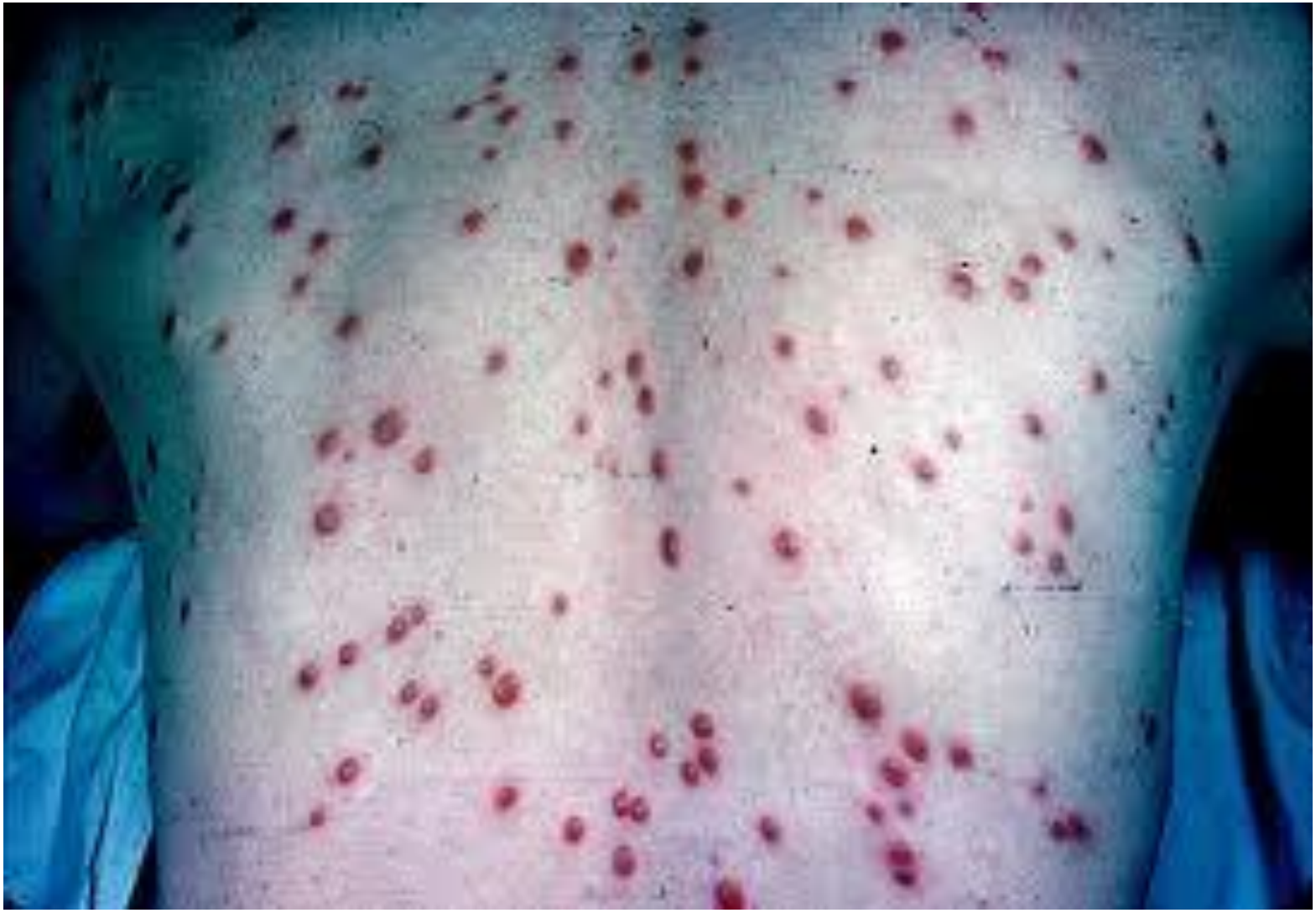
Secondary syphilis

- cc by mucocutaneous lesion, flu like syndrome and generalized lymphadenopathy. Onset of secondary syphilis preceded by flu like syndrome (sore throat, headache, muscle aches, meningismus and loss of appetite), generalized painless lymphadenopathy, hepatosplenomegally may be present.

- Skin lesion :- bilaterally symmetrically distributed , non inflammatory slowly develop poly morphic lesion (maculopapular , papular , macular, annular , papulopastular , psoriasiform and follicular lesion) with characteristic coppery tint . Palm and sole involved with oval slightly raised erythematous scaly lesion. Temporary irregular (moth-eaten) alopecia. condylamata lata (moist wart like papules) of anal canal which is highly infectious

- Secondary lesion subsides within 2-6 weeks, infection entering latent stage. Cellular immunity responses are responsible for cutaneous manifestation of secondary syphilis





- Latent syphilis defined as syphilis CC by seroreactivity without other evidence of disease (no clinical signs and symptoms of disease which either

1. Early latent syphilis if within the year preceding the evaluation they have :-

- Documented seroconversion (RPR, VDRL not false positive result) without evidence of active disease.
- Unequivocal symptoms of primary and secondary syphilis
- A sex partner documented to have primary, secondary or early latent.

2. More than 4 years duration

- **Tertiary syphilis**
- Occur in small number of un treated or inadequately treated patients including cardiovascular , CNS and systemic granulomas (Gummas).
- Gumma is ulcerative expanded destructed nodular or papilosequamous plaques heal with scarring on scalp , face . calf, and chest.
- Neurosyphilis either asymptomatic CSF abnormality and reactive VDRL or symptomatic meningiovascular syphilis .
- Cardiovascular , end arteritis obliterance

- **SYPHILIS and HIV**
- Syphilitic genital ulcer is a cofactor for transmission of HIV (increase risk of transmission and acquiring HIV and there is accelerated progression through syphilitic stages in HIV patients .
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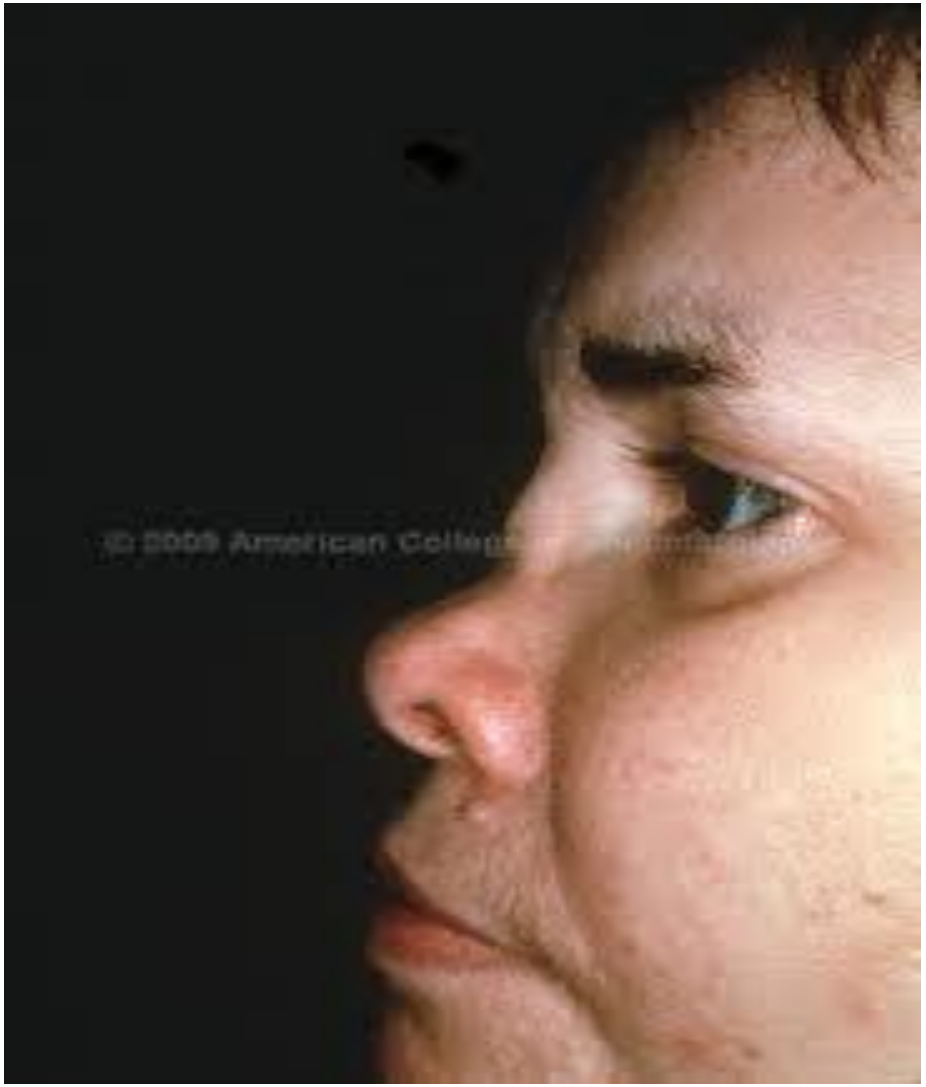
Congenital syphilis

- Transmitted mainly from infected mother with early syphilis usually develop after 4th month of gestation, adequate treatment before 16 weeks prevent fetal damage , divided into early manifestation before 2 year of age resembling severe secondary syphilis in adult.
- Late manifestation after 2 year (non infectious) resempling late acquired syphilis in adult.

- Residual stigma :

- hutchisons teeth , abnormal fascies , frontal bossing, saddle nose , poorly develop maxilla , saber shin and nerve deficite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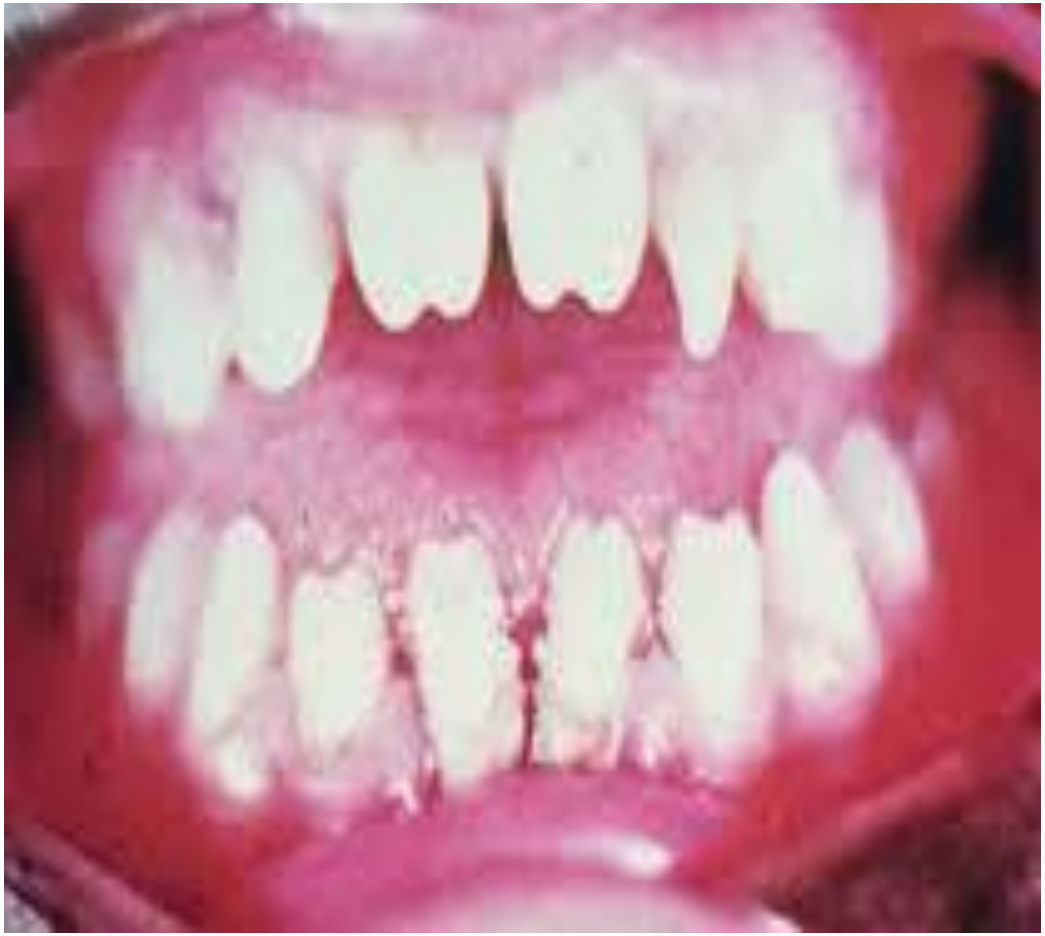

Laboratory exam:-

- Dark field microscopy positive in primary chancre and papular lesion of secondary
- Syphilis .
- DFA – T.Pallidum test
- Serological test positive in any treponemal infection
- **Non treponemal test** PRP regain ,VDRL
- Prozone phenomina if antibodies titer is high test may be negative and must dilute serum. Following therapy for early syphilis titer become non reactive or reactive in low titer.
- **Treponemal test** FTA –ABS test , MHA, TP test not helpful in determining infectious status of patient with past syphilis because remain reactive after therapy

- Lumber puncture (pleocytosis and increase protein concentration) indicated in neurosyphilis , HIV/AIDS seropositivity , evidence of active syphilis
- Lesional skin biopsy usful in primary and secondary syphilis .

- Treatment of syphilis;benzathine penicillin G, no proven alternative to penicillin, patient with penicillin allergy should be desensitized
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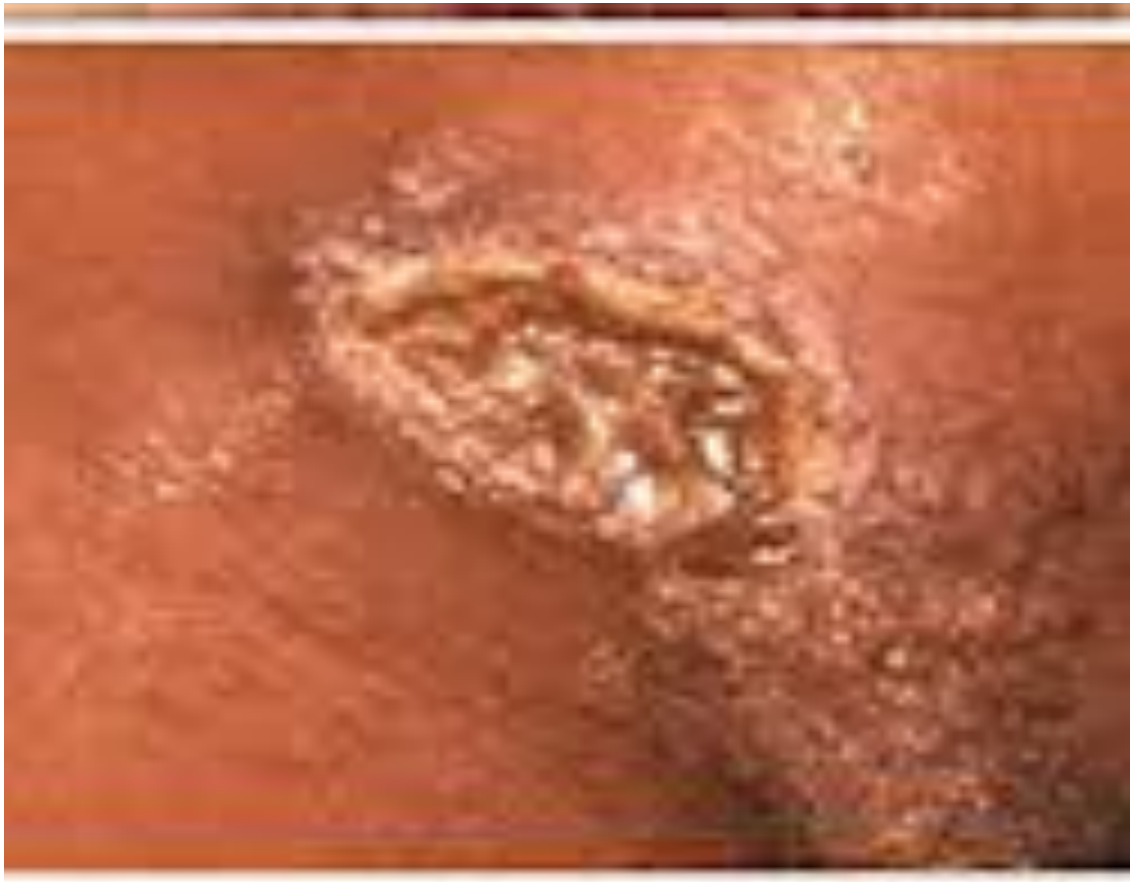
Chancroid

- STD caused by H . Ducreyi affect male more , also it is acofactor for HIV infection.I.P 4-7 Days, cc by tender,erythematous papules evolve to tender, sharp border, undermined , not indurated painful ulcer with granulation tissue and yellowish exudation covering base of ulcer (single or multiple) associated with painful regional and S.T suppurative(highly diagnostic) lymphadenopathy
- Diagnosis; clinically, DF examination and serology of syphilis to exclude T. Pallidum infection, test for HSV1 and Culture in special media



- Management
- 1 . 1 gm azithromycin single dose
- 2. 250 mg im cefitriaxone single dose
- 3.500mg ciprofluxacine 2 times dialy for 3 days
- 4.erythromycin 500mg 4 times dialy for 7 days
-

Chlamydia trachomatis infections

- caused by C.Trachomatis obligate intracellular bacteria.it is the most common bacterial STD in every population which is either localized or invasive

localized CT infection caused a wide variety of disease include;

- 1.nongonococal urthritis (urethral discharge, dysuria, urethral itching in men and dysuria, pyuria, frequency in women)
- 2.proctitis mild rectal pain, mucous discharge, tenismus and bleeding)
- 3.mucopurulent cervicitis either asymptomatic or slight vaginal discharge and intermenstrual bleeding

- 4.pelvic inflammatory disease (PID) ; vaginal bleeding , lower abdominal pain, uterine tenderness with no adnexial tenderness, silent salpingitis result in fallopian tube scarring, ectopic pregnancy, infertility, endometritis and pelvic peritonitis

- **DDX;** gonorrhea, u urealyticum, trichomoniasis, herpetic urethritis
-
- **Laboratory investigation;**
- Direct microscopy
- PCR most sensitive and specific
- Culture
- DFA direct fluresent antibody ; examine exudates
- ELISA test

- **Management;**
- Azithromycin 1gm single dose, doxycycline 1gm dialy for 7 days.

- **Invasive type** , persent as
- 1.acute LGV (genital lesion, suppurative regional lymphadenopathy)
- 2. women may develop haemorrahgic proctitis , regional lymphadenitis
- 3.genital elephantiasis, stricture , fistula of penis, urthra and rectum (late complication).
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HIV AIDS infections

- HIV is belong to retrovirus species attack cell of immunity CD4 T.helper lymphocyte lead to gradual and progressive decrease in its count and when reach less than 200 per ml lead to AIDS. The disease common in young age group transmitted through sexual contact with an infected person, blood or blood product, perinatal exposure occur intrapartum or through breast feeding.

- Genital ulcer disease, high viral load of HIV , anal intercoarse are risk factor for acquisition.
- Nearly all HIVlAIDS Infected individuals manifest some dermatological disorder attributable to progressive immunodeficiency during the coarse of the infection. some of them are highly associated HIVl AIDS

- Non specific complain include fever, night sweating, chills, weakness, lymphadenopathy and weight loss
- Patient may appear healthy even if CD4 + cell lymphocyte approaching zero.
- Skin findings common in advanced untreated disease;

- 1.dermatological disorders; atopic dermatitis, psoriasis, pruritis, xerosis-, seborrhiec dermatitis and adverse cutaneous drug reaction.

2. Apportunstic infection ; mucosal
- candidiasis, molluscum contagiosum,HSVInfection, chronic herpetic ulcer, VZInfection, skin and mucosal HPV infection

- Apportunstic neoplasms; Kaposi sarcoma, non hodgkin and Hodgkin lymphoma, HPV induced dysplasia and sequamous cell carcinoma of cervix and anal canal.

Unique HIVlAIDS disease; acute HIVl AIDS

- disease, oral hiary leukoplakia, eosinophilic folliculitis, bacillary angiomatosis

- **Diagnosis;**
- CD4+T lymphocyte using for monitoring the degree of immunodeficiency and the response to antiviral therapy.
- HIV /AIDS RNA ; used to monitor response to ART.

- **Management**
- Safer sexual practice, blood should be tested before administration
- Antiviral therapy