SEX AND STD'S.

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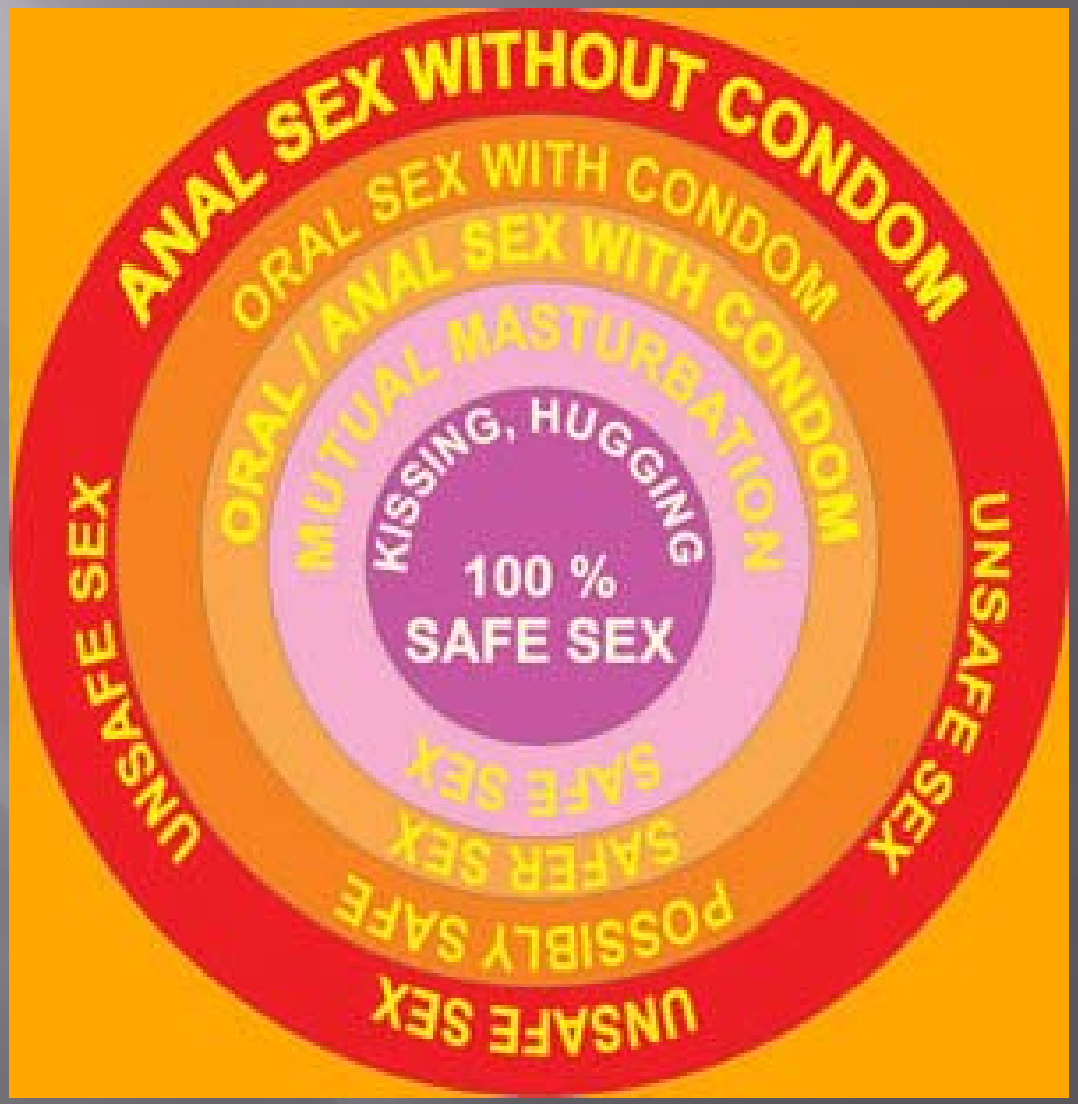
Sex is a pleasure….

But it may have complications…

How safe is sex?



STD's : Which are they?

- Genital warts
- Genital herpes
- Syphilis
- Gonococcal and no gonococcal urethritis
- HIV
- Hepatitis B and C

Also:

- Lymphogranuloma venereum and Granuloma inguinale (rare in Europe and U.S),
- Infections requiring close skin contact and may be sexually transmitted: Scabies, Crabs, Moluscum

Genital warts

More than 100 types of HPV .

Many of these are sexually transmitted. More than 50% of sexually active people are hosts of at least one type. The majority cause subclinical infections which are self limited.

Some are oncogenic (16,18,31,33-35,39,41,51,52,56,58,59,68 and 70) and may cause cervical cancer and penile cancer (40-46% of cases of penile cancer)-Vaccine. 2012 Aug.

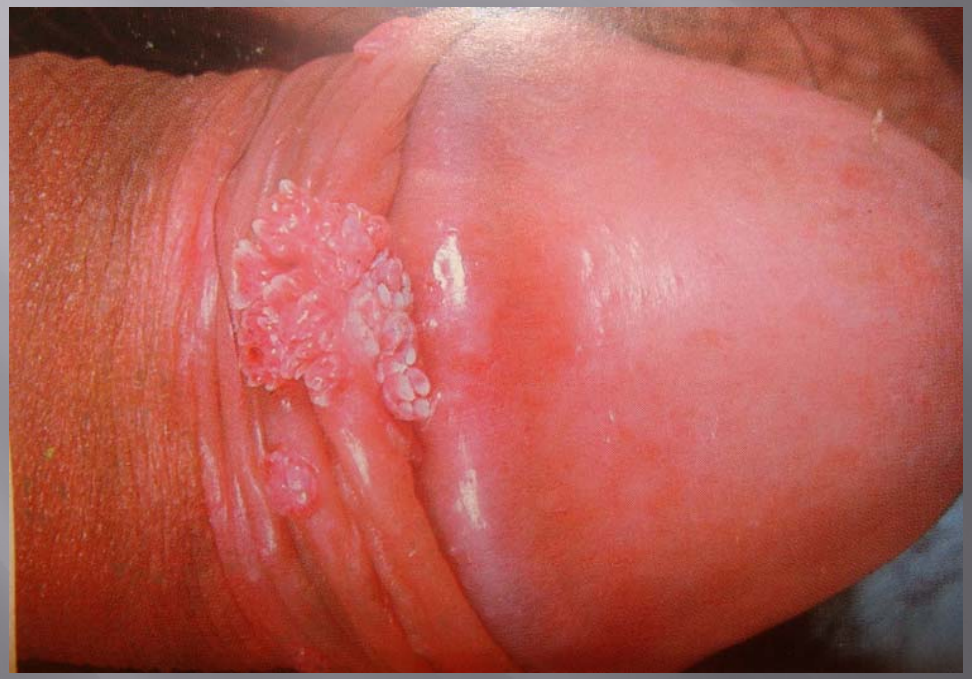
Those types of HPV are also responsible for 25% of facial and orofaryngial cancers.

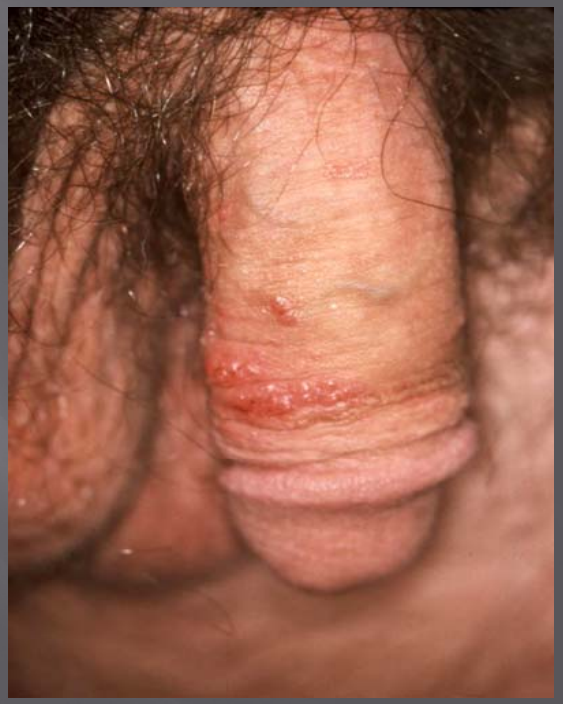
90% of genital warts are caused by HPV types 6 and 11

Clinical manifestation

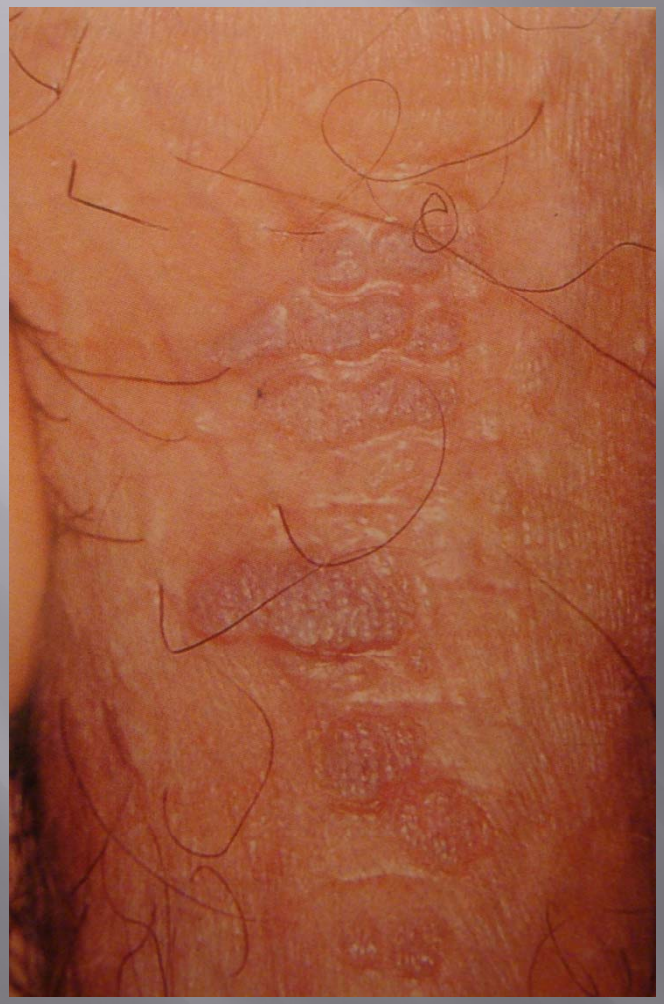
- Diagnosis is clinical but presentation is very diverse.
- Usually they present as flesh colored, asymptomatic papules, nodules or plaques, located at the genital and perianal area, the inner thighs or (more rarely) in the mouth.
- In areas with friction (e.g. frenulum of non circumcised men or perianal area), relapses are very common.

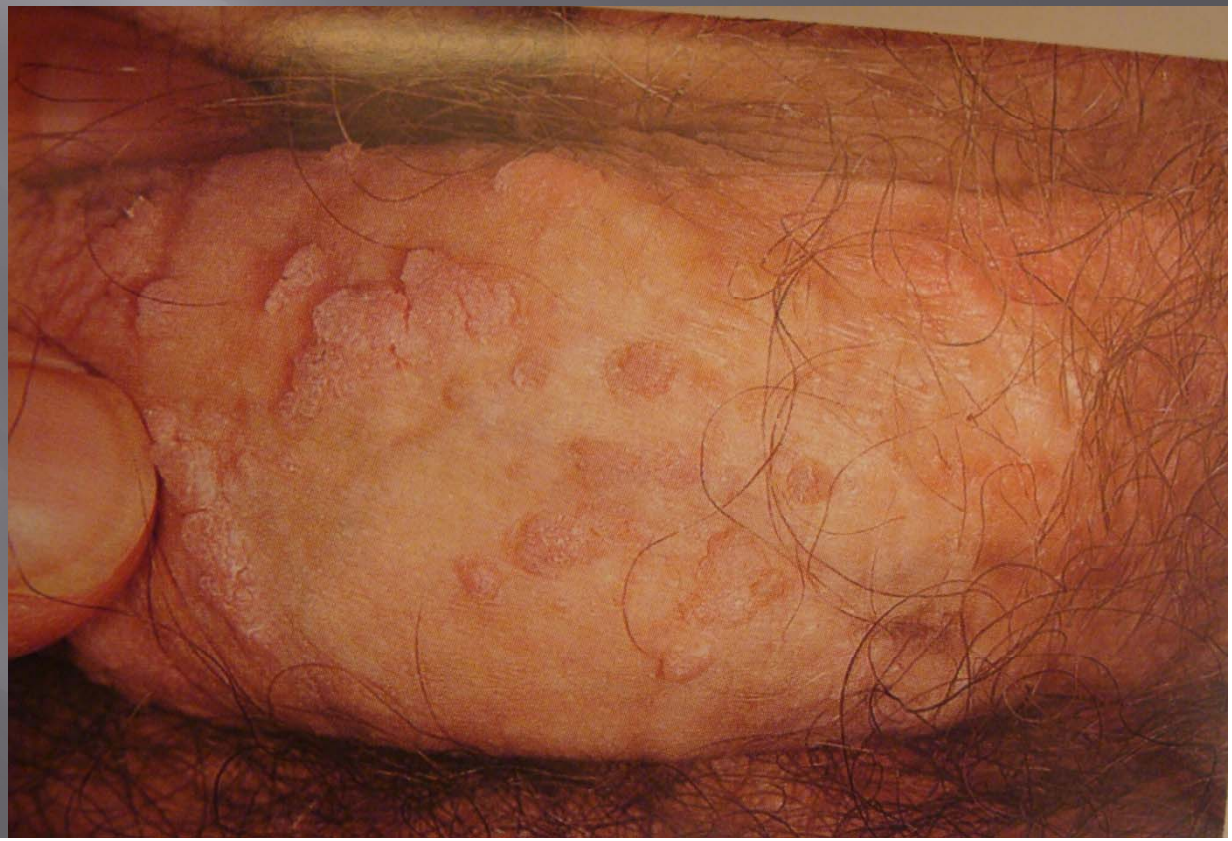
Genital warts



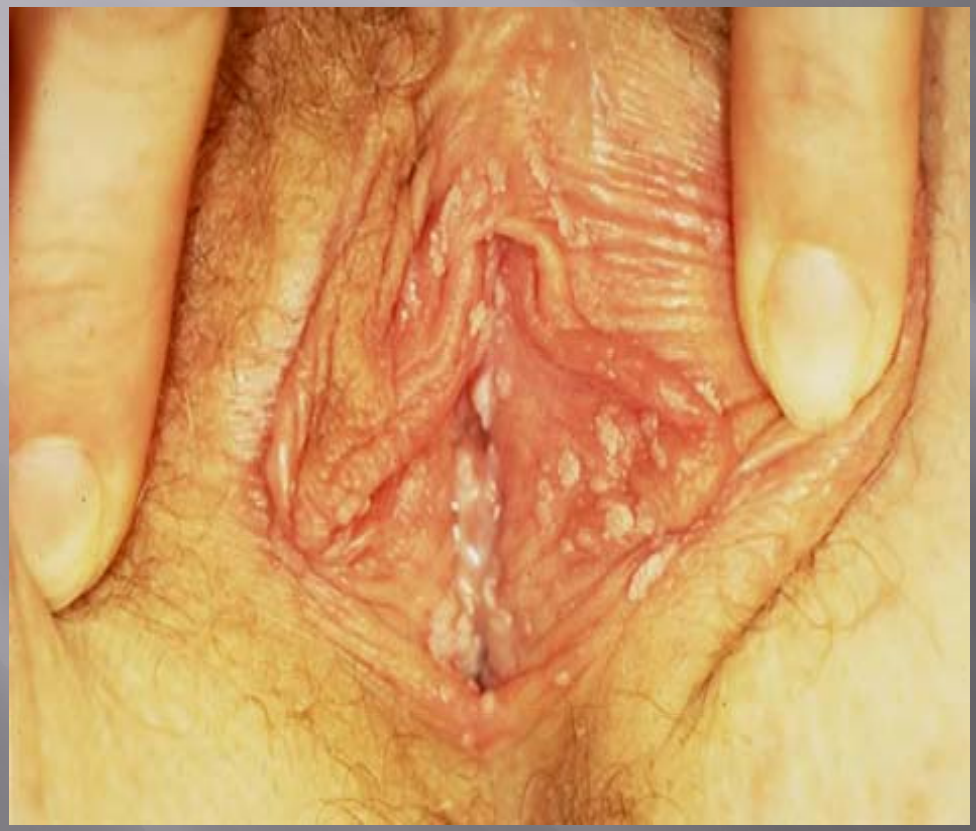


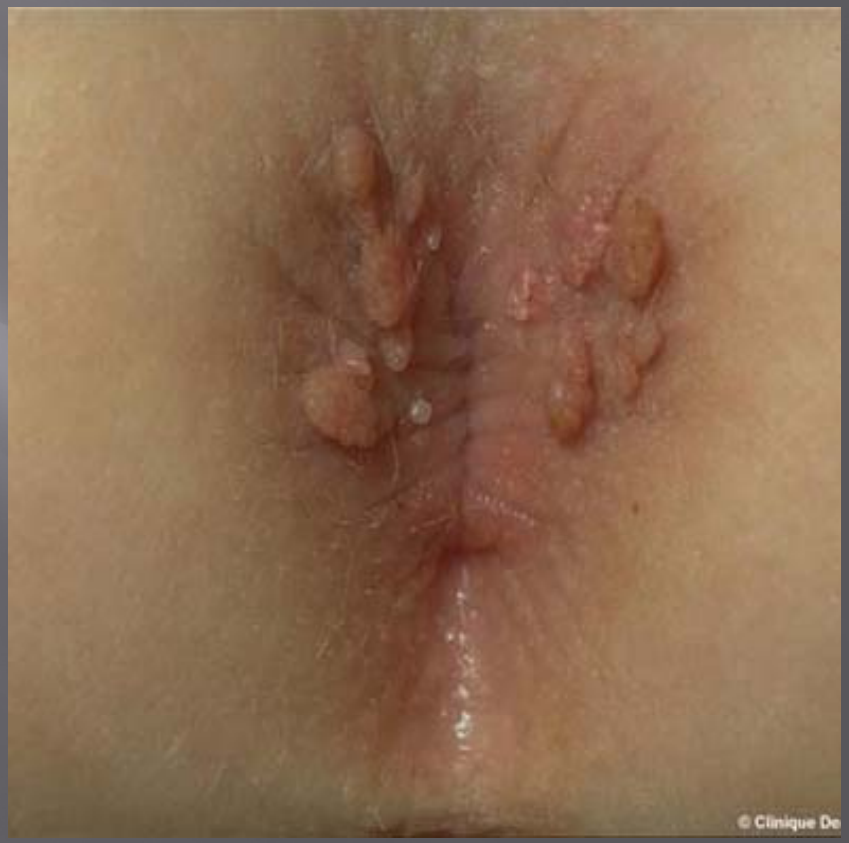
Genital warts



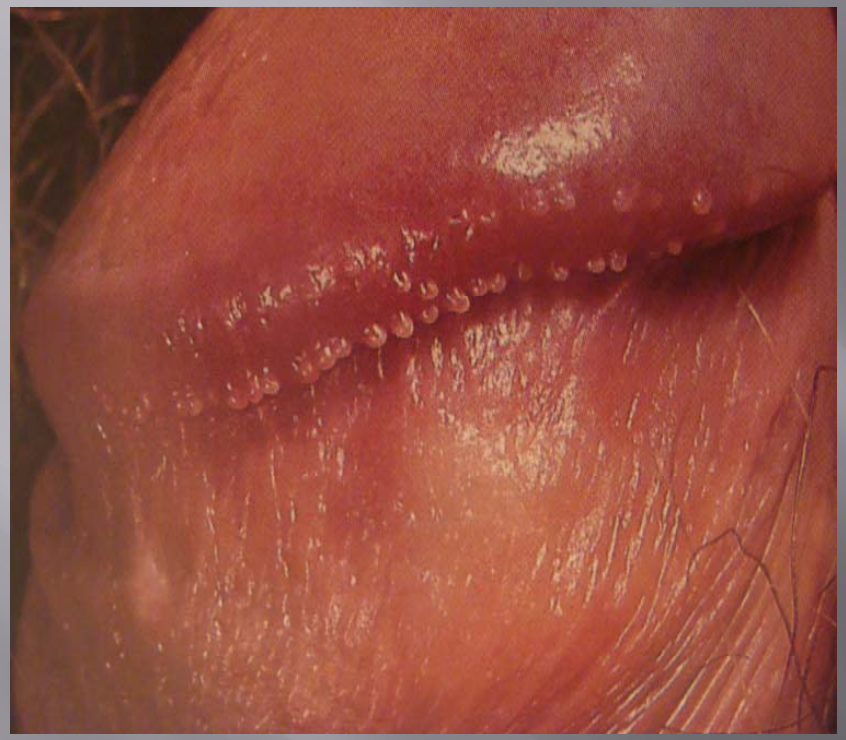


Genital warts-Women

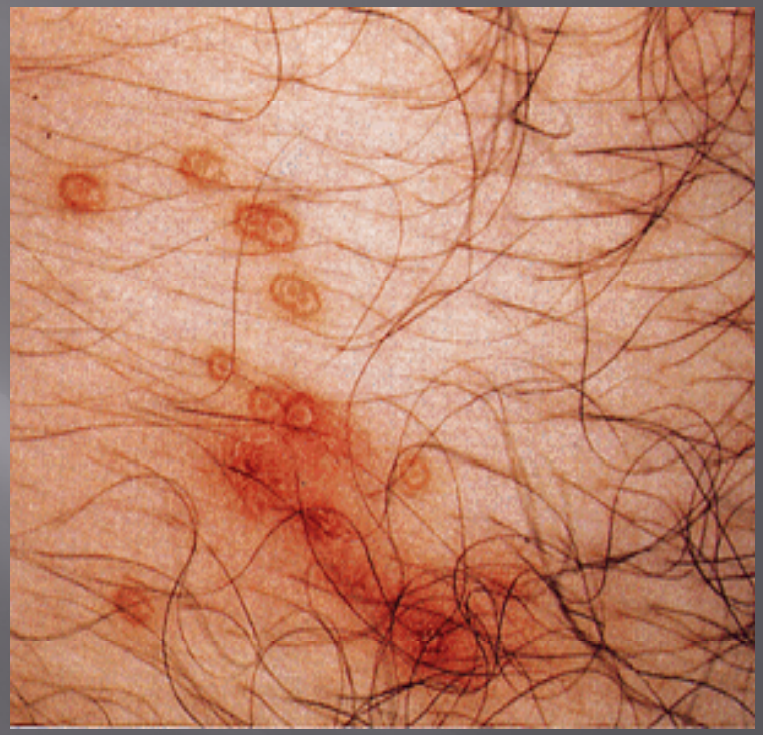




Lesions resembling genital warts



Penile papules



Moluscum

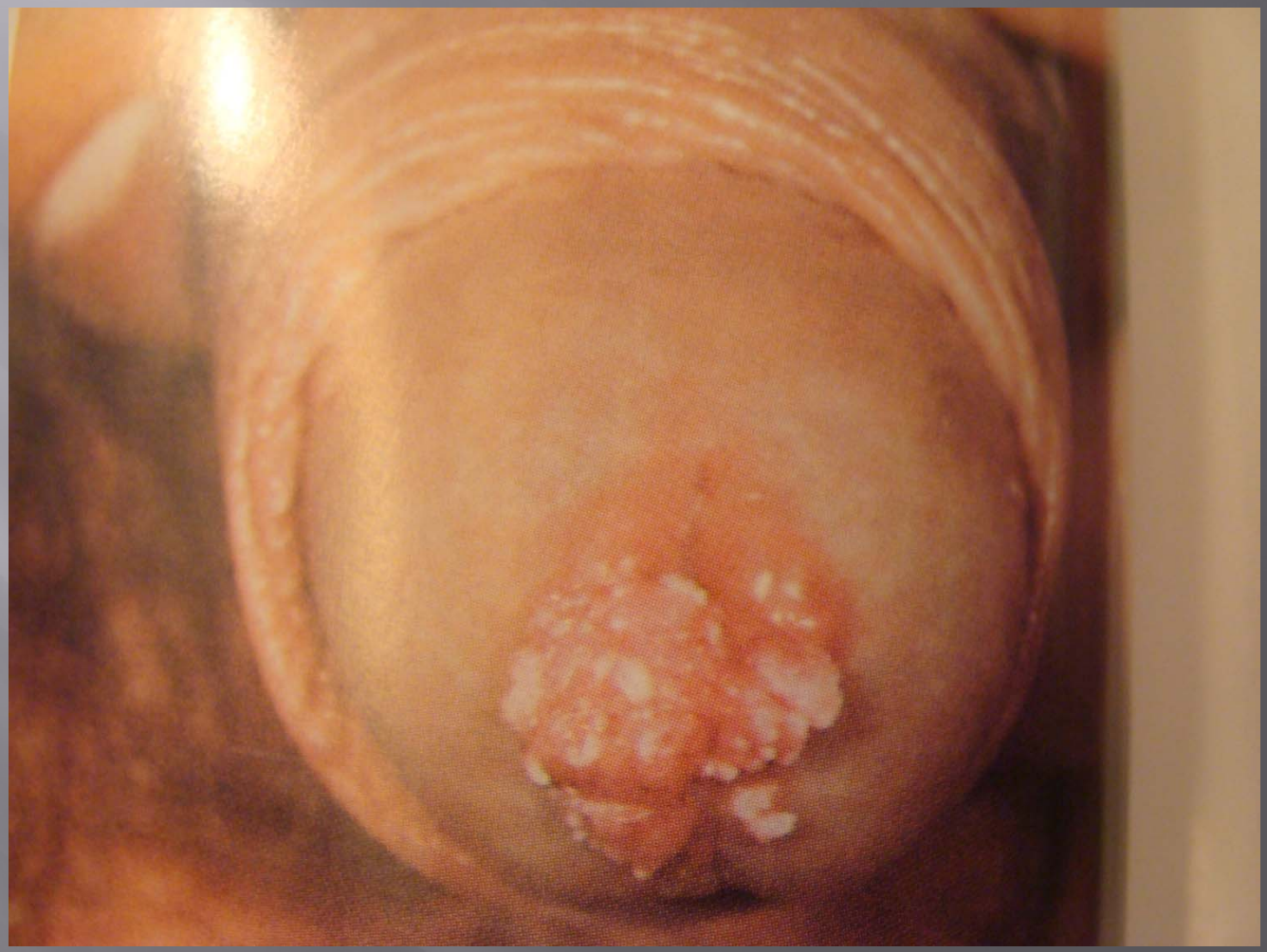
Genital warts

- Genital warts can be confirmed by biopsy, which might be indicated if 1) the diagnosis is uncertain; 2) the lesions do not respond to standard therapy; 3) the disease worsens during therapy; 4) the lesion is atypical; 5) the patient has compromised immunity; or 6) the warts are pigmented, indurated, fixed, bleeding, or ulcerated.

Genital warts

- Incubation time: 2-9 months.
- The virus lives in latent state and can be re-activated in case of stress, immunodeficiency etc.
- Transmission is less possible after a year without relapses (following successful treatment).
- When genital warts are located in areas not protected by a condom, the sexual partner can be infected anyway.
- In frequent relapses of genital warts around the urethra, endoscopic evaluation should be performed.
- A diagnosis of HPV in one sex partner is not indicative of sexual infidelity in the other partner.

Urethral condylomas



Treatment

- Topical treatment : Podofilox is an antimitotic drug,
  Imiquimod is a topically active immune enhancer, (5FU) a DNA-inhibitor.
- Cryotherapy
- Electrocautery
- Laser CO2.

- Inderferons (intralesionaly or systemically).
- No method is superior to another regarding preventing relapses.
- In frequent recurrences immune enhancing oral treatment may be helpful. (Also healthy life style, stopping smoking).
- VACCINES

HPV vaccines

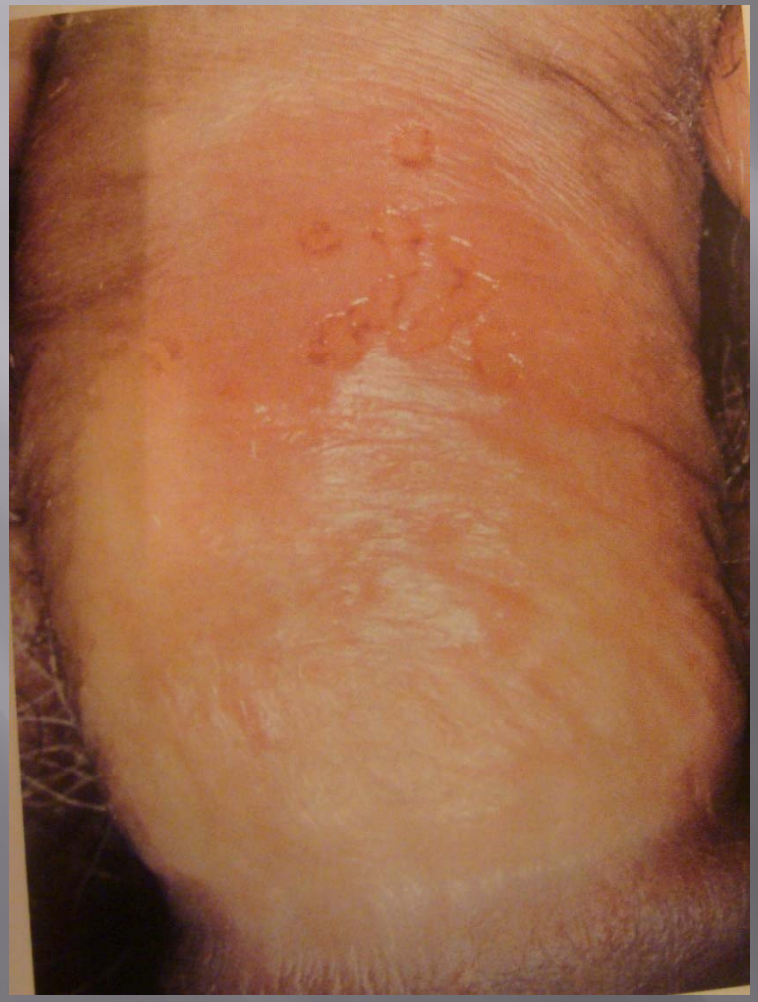
- Two HPV vaccines are available, both of which offer protection against the HPV types that cause 70% of cervical cancers (i.e., types 16 and 18); the quadrivalent vaccine (Gardasil) also protects against the types that cause 90% of genital warts (i.e., types 6 and 11). The other (Cervarix®) contains types 16 and 18, targeting cervical cancer alone, but also has a degree of cross-protection against types 31 and 45, which could significantly increase the level of protection .
- These vaccines are most effective when all doses are administered before sexual contact. Either vaccine is recommended for 11- and 12-year-old girls and for females aged 13–26 years who did not receive or complete the vaccine series when they were younger. The quadrivalent HPV vaccine can be used in males aged 9–26 years to prevent genital warts.
- Both HPV vaccines are administered as a 3-dose series of IM injections over a 6-month period, with the second and third doses given 1–2 and then 6 months after the first dose.

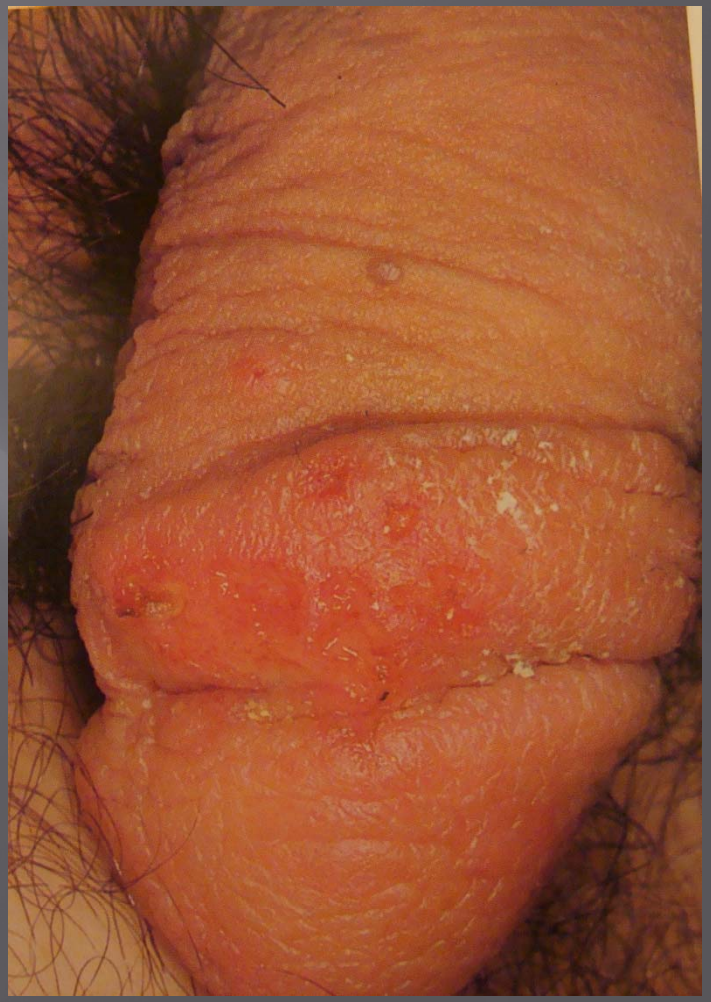
Genital herpes

- It is mainly caused by HSV2, however a smaller percentage is caused by HSV1 (orogenital transmission).

- Newly acquired genital herpes can cause a prolonged clinical illness with severe genital ulcerations and neurologic involvement.
- Presentation: painfull vesicles on a red surface, regional lymphadenopathy, dysouria .
- If diagnosis is uncertain, cell culture and PCR are the preferred HSV tests .
- Type-specific HSV serologic assays might be useful in the following scenarios: 1) recurrent genital symptoms or atypical symptoms with negative HSV cultures; 2) a clinical diagnosis of genital herpes without laboratory confirmation; or 3) a partner with genital herpes.
- Screening for HSV-1 and HSV-2 in the general population is not indicated.(80% are positive for HSV1 Ab's)

Genital herpes





Genital herpes

- Recurrences have milder symptoms and last shorter.
- After the first 2 years relapses are less frequent.

- Factors which favor relapses are : stress, intense sexual activity, illness, immune deficiency
- Herpes is more contagious during relapses, however asymptomatic shedding of the virus in the latent period can cause transmission to the sexual partner.

1st episode treatment

- **Acyclovir** 400 mg orally three times a day for 7–10 days
- OR
- **Acyclovir** 200 mg orally five times a day for 7–10 days
- OR
- **Famciclovir** 250 mg orally three times a day for 7–10 days
- OR
- **Valacyclovir** 1 g orally twice a day for 7–10 days
- *Treatment can be extended if healing is incomplete after 10 days of therapy.

Treatment of recurrent episodes

Acyclovir 400 mg orally three times a day for 5 days

OR

Acyclovir 800 mg orally twice a day for 5 days

OR

Famciclovir 125 mg orally twice daily for 5 days

OR

Famciclovir 1000 mg orally twice daily for 1 day

OR

Famciclovir 500 mg once, followed by 250 mg twice daily for 2 days

OR

Valacyclovir 500 mg orally twice a day for 3 days

OR

Valacyclovir 1 g orally once a day for 5 days

Suppression treatment (for 6–12 months)

- **Acyclovir** 400 mg orally twice a day
- OR
- **famiciclovir** 250 mg orally twice a day
- OR
- **Valacyclovir** 500 mg orally once a day*
- OR
- **Valacyclovir** 1 g orally once a day
- * Valacyclovir 500 mg once a day might be less effective than other valacyclovir or acyclovir dosing regimens in patients who have very frequent recurrences (i.e., ≥10 episodes per year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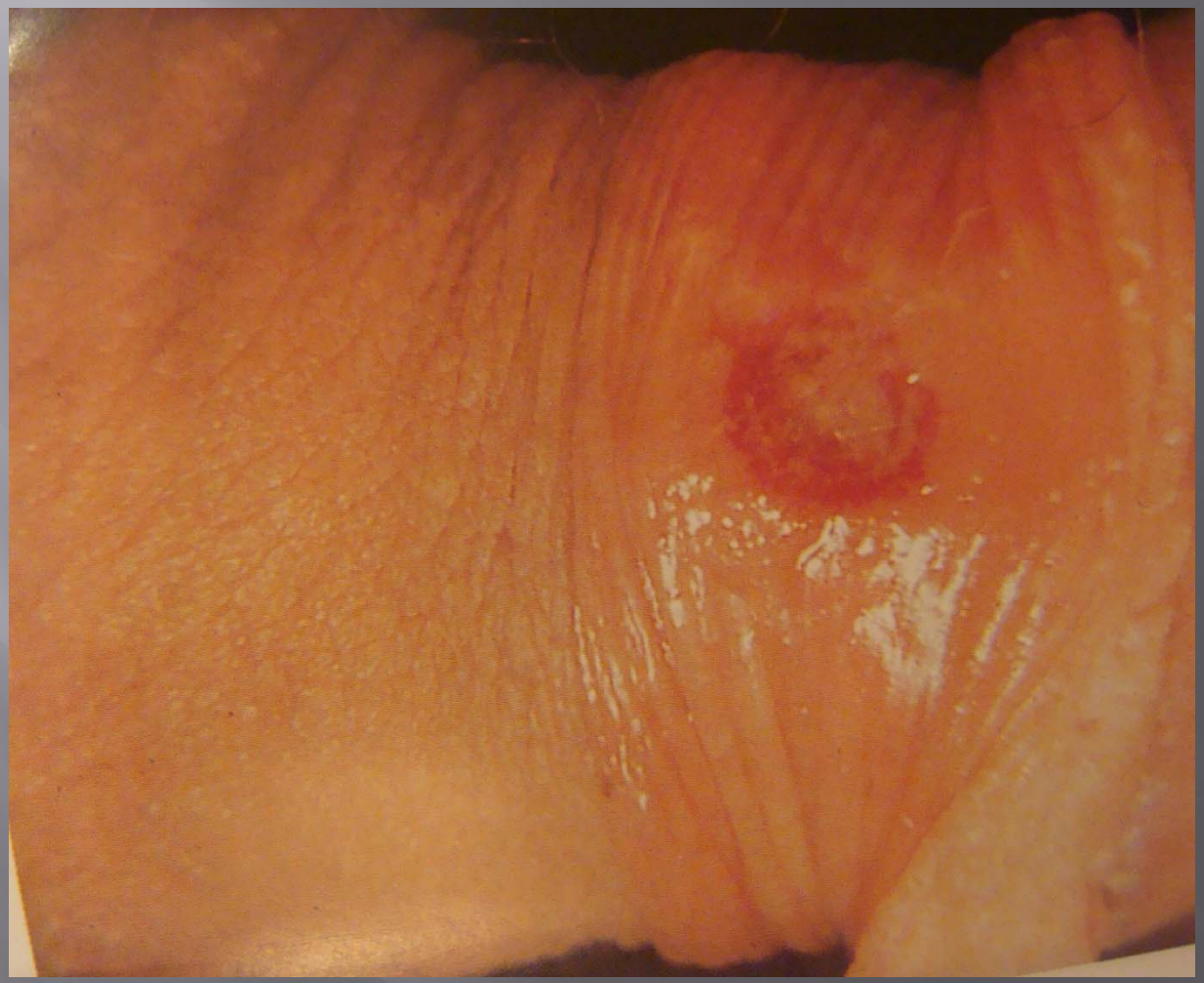
Love is blind
durex

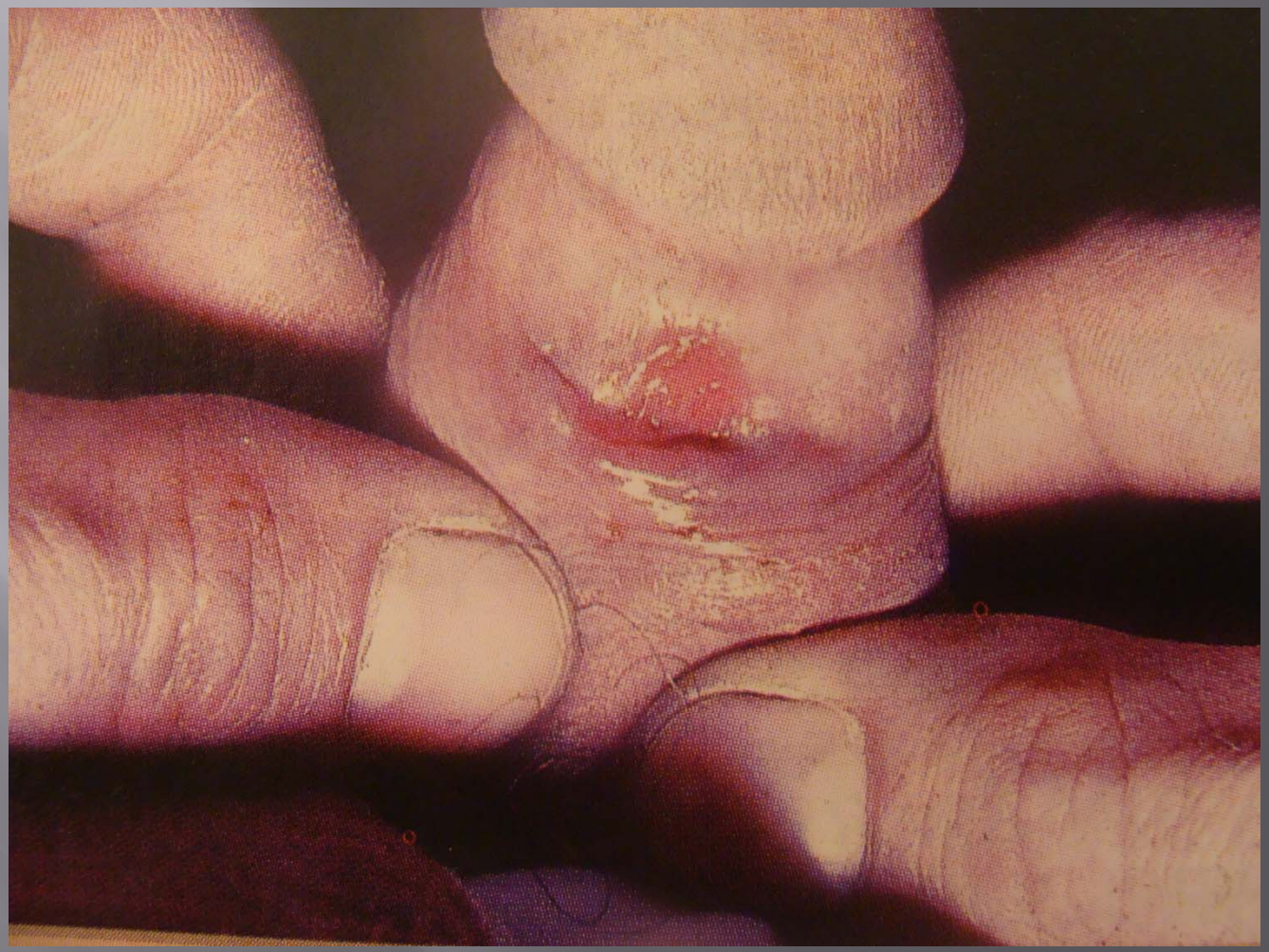
Syphilis

- Since the beginning of the third millennium the incidence of Syphilis is rising in Europe and this after a steady decline in the second half of last century.
- First indication of syphilis is an ulcer (genital area, mouth) 2-6 weeks after infection.
- Usually it is a single, painless(in contrary with herpetic ulcer) ulcer accompanied by regional lymphadenopathy.
- Without treatment it disappears within 2 months.(latent syphilis).

Syphilis ulcer



Συφιλιδικό έλκος



Diagnosis of syphilis

- Darkfield examinations and tests to detect *T. pallidum* in lesion exudate or tissue are the definitive methods for diagnosing early syphilis .
- Also serologic tests are available:

1)nontreponemal tests (e.g., Venereal Disease Research Laboratory [VDRL] and RPR) and

2) treponemal tests (e.g., fluorescent treponemal antibody absorbed [FTA-ABS] tests, the *T. pallidum* passive particle agglutination [TP-PA] assay, various EIAs, and chemilumines-cence immunoassays).

- The use of only one type of serologic test is insufficient for diagnosis, because each type of test has limitations, including the possibility of false-positive test results in persons without syphilis.

Syphilis treatment

- ***Early Latent Syphilis***

Benzathine penicillin G 2.4 million units IM in a single dose.

- ***Late Latent Syphilis or Latent Syphilis of Unknown Duration***

Benzathine penicillin G 7.2 million units total, administered as 3 doses of 2.4 million units IM each at 1-week intervals.

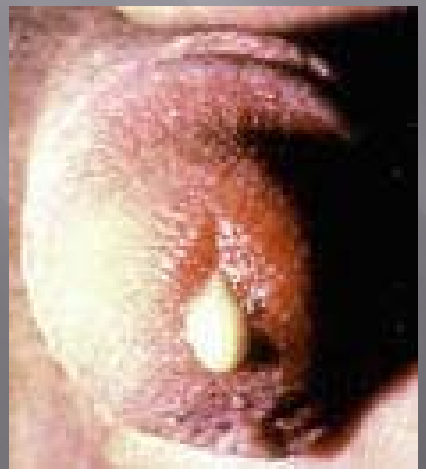
- **Neurosyphilis**

Aqueous crystalline penicillin G 18–24 million units per day, administered as 3–4 million units IV every 4 hours or continuous infusion, for 10–14 days.

- Persons who were exposed within the 90 days preced-ing the diagnosis of primary, secondary, or early latent syphilis in a sex partner might be infected even if seronegative; therefore, such persons should be treated presumptively.

Gonorrhea

- Symptoms start 3-4 days after intercourse (dysouria, mucopurulent or purulent discharge) Cause : Neisseria gonorrhea.
- Gonococcal infection is established by documenting the presence of WBC containing GNID (testing urethral discharge)
- Specific diagnosis of infection with *N. gonorrhoeae* can be performed by testing endocervical, vaginal, urethral (men only), or urine specimens. Culture, nucleic acid hybridization tests, and NAATs are available for the detection of genitourinary infection with *N. gonorrhoeae* . Culture and nucleic acid hybridization tests require female endocervical or male urethral swab specimens.



Gonorrhea Treatment

Uncomplicated Gonococcal Infections of the Cervix, Urethra, and Rectum

Ceftriaxone 250 mg IM in a single dose

OR, IF NOT AN OPTION

Cefixime 400 mg orally in a single dose

OR

Single-dose injectible **cephalosporin** regimens

PLUS

Azithromycin 1g orally in a single dose

OR

Doxycycline 100 mg orally twice a day for 7 days

Non gonnococcal Urethritis

Causes :

- Chlamydial infection (C.Trachomatis)
- Mycoplasma (M.Genitalium)
- Ureoplasma (*U. urealyticum*)
- Lass often: *T. vaginalis* ,anaerobes, fungal infections.

Non gonnococcal Urethritis

Usually asymptomatic

When symptoms occur, those are mild to moderate dysouria small discharge mainly in the morning after an incubation period of 10-30 days.

Also possible oral transmission.

Causative agent cannot always be isolated, as symptoms due to hypersensitivity reaction may reappear even after succesful tratment for chlamydia.

- Complications: epididymitis ,testiculitis, infertility, Reiter's syndrome.

Non gonnococcal Urethritis

Lab tests :

The Gram stain is the preferred rapid diagnostic test for evaluating urethritis and is highly sensitive and specific for documenting both urethritis and the presence or absence of gonococcal infection.

- • Gram stain of urethral secretions demonstrating ≥5 WBC per oil immersion field and absence of gonococci, diagnosis of non gonococcal urethritis is confirmed.

  PCR testing of urethral discharge or semen for chlamydia, mycoplasma, ureoplasma reveal the pathogen.

Non gonnococcal Urethritis- Treatment

Treatment : (FOR BOTH SEX PARTNERS AND WITHOUT SEX DURING TREATMENT)

- **Azithromycin** 1 g orally in a single dose (more effective than doxicycline inagainst ureoplasma).

Ή

- **Doxicycline** 100 mg orally twice daily for 7 days.
- If relapse occurs :
- **Metronidazole** 2g orally in a single dose.

OR

- **Tinidazole** 2g orally in a single dose

PLUS

- **Azithromycin** 1 g orally in a single dose (if not taken initially).

Among sexually active men aged <35 years, acute epididymitis is most frequently caused by *C. trachomatis* or *N. gonorrhoeae*. Sexually transmitted acute epididymitis usually requires empiric therapy before laboratory test results are available :

- **Ceftriaxone** 250 mg IM εφ'άπαξ

PLUS

- **Doxycycline** 100 mg από το στόμα δύο φορές ημερησίως για 10 ημέρες.

Enjoy sex safely!