STIs- REVISION

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DEFINITIONS

- STIs
- STDs
- VD
- Genital Tract Infections
- Genito-urinary Tract Infections
- Reproductive Tract Infections

GENERAL FEATURES OF STIs

- **1. Spread by direct intimate contact (mucosa or “damaged” skin)**
- **2. Causative agents - cannot survive outside human body for any length of time and highly specific for humans**
- **3. Site of infection (genital area, oral, anal) influenced by sexual preference (homosexual, heterosexual, etc)**
- **4. Majority cause genital disease, - some do not (e.g., HIV infection may be subclinical, localised or disseminated resulting in complications)**
- **5. Most are treatable (exception viral infections)**
- **6. Prevention is difficult as many STDs do not provoke significant protective immunity and vaccines are not available as yet (cancer vaccines)**

IMPORTANCE

- common affecting some 250-325 million persons per year worldwide. South Africa estimated number infected ± 4 million
- many infections may be silent and many affected persons delay seeking treatment
- STIs increase spread of HIV/AIDS and therefore control of STIs will prevent HIV spread
- interaction between HIV and other STIs:
  - enhanced acquisition and transmission
  - altered clinician presentation
  - sub-optimal response to therapy
  - ?? progression to AIDS

IMPORTANCE

COMPLICATIONS

- local
- ascending infections
- disseminated infections
- pregnancy and outcome

AETIOLOGICAL AGENTS

BACTERIA

- *Neisseria gonorrhoeae*
- *Chlamydia trachomatis*
- *Treponema pallidum*
- *Haemophilus ducreyi*
- *Calymmatobacterium granulomatis*
- *Gardnerella vaginalis*
- *Ureaplasma urealyticum*
- *Mycoplasma hominis*
- *Mycoplasma genitalium*

VIRUSES

- HIV
- HSV
- HPV
- HBV

PARASITES

- *Trichomonas vaginalis*

FUNGUS

- *Candida albicans*

CLINICAL CLASSIFICATION

Convenient classification is based on the common clinical presentations, especially in early disease.

i) **those that produce genital discharges**

ii) **those that cause ulcerative disease**

iii) **others, incl. some do not cause genital lesions**

DEFINITION OF SYNDROMIC MANAGMENT

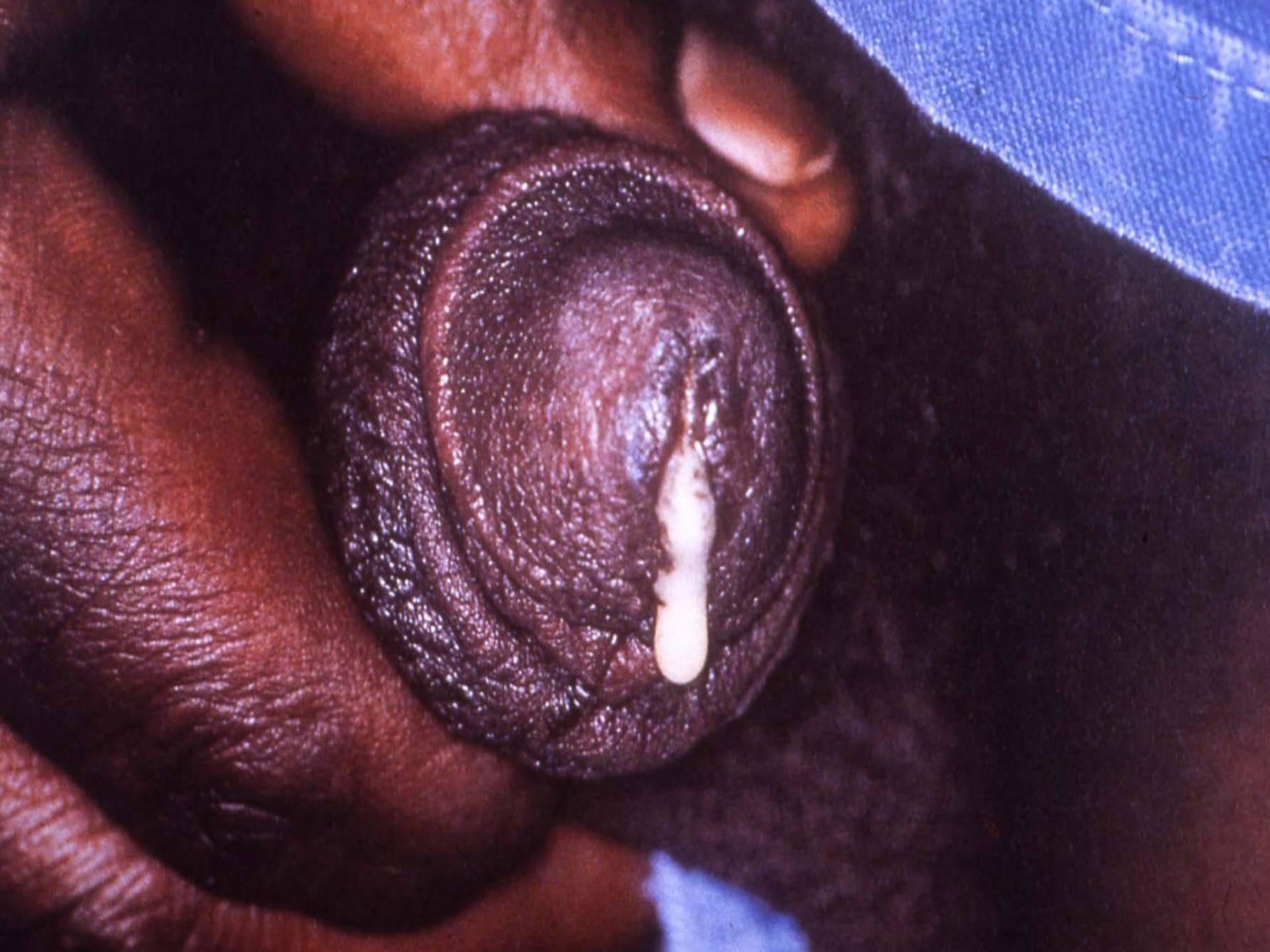
Identification of signs and symptoms and treatment for likely causes

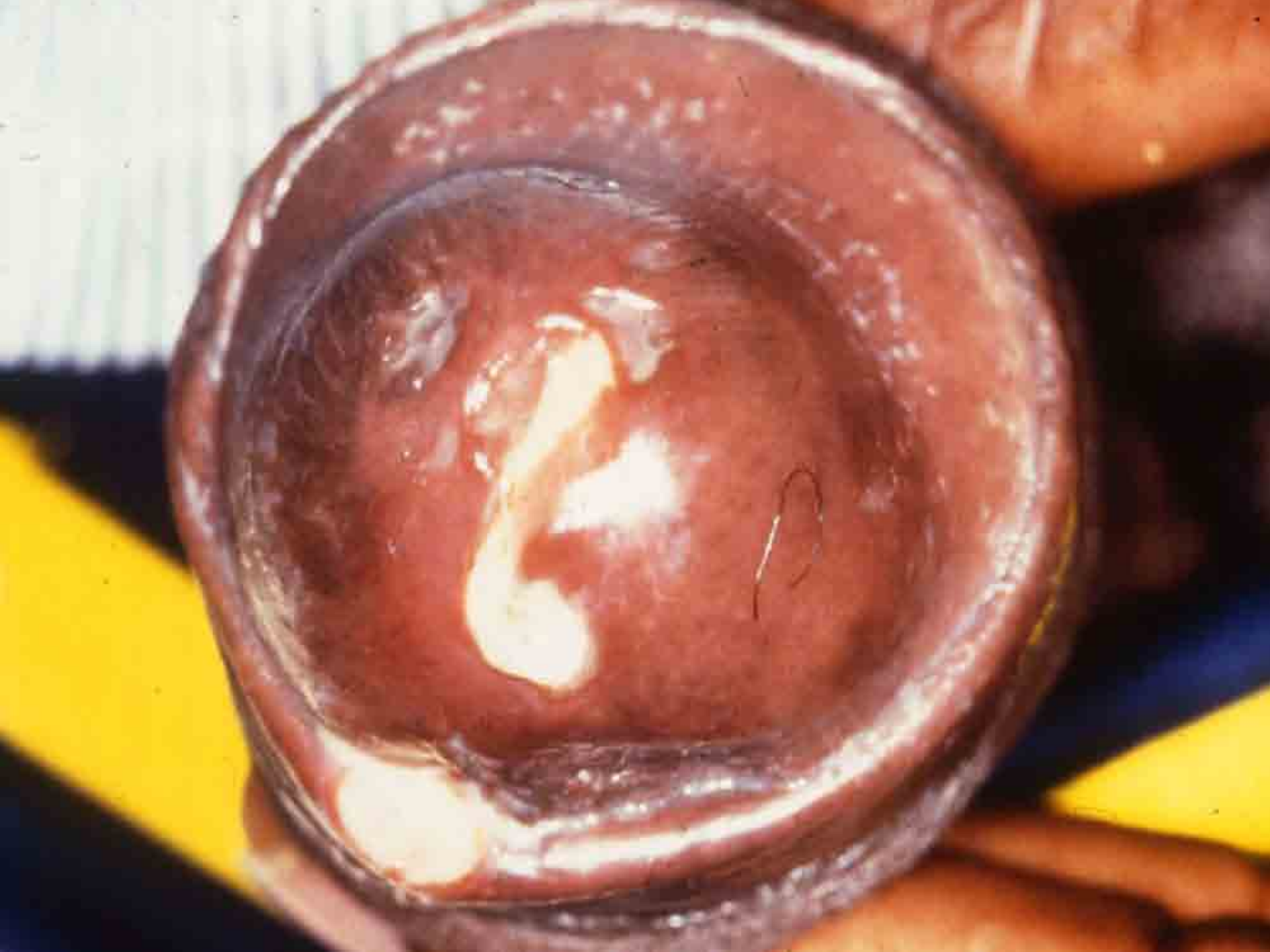
- **e.g. urethral discharge** instead of gonorrhoea, chlamydial infection, trichomoniasis

- **e.g. genital ulcer disease** instead of syphilis, chancroid, LGV, etc.

COMMON SYNDROMES

- Urethral discharge with swollen testis (PUD)
- Genital ulcer disease (GUD) with buboes
- Vaginal discharge (VD)
- Lower abdominal pain (LAP)
- Neonatal conjunctivitis (ON)





URETHRAL DISCHARGE

- **Clinical considerations**
  - With/without swollen testes
  - With/without genital ulcer
  - Differential diagnosis

- **Epidemiological considerations**
  - Aetiological agents
  - Antimicrobial profile

ADULT MALE URETHRITIS

GONOCOCCAL

Neisseria gonorrhoeae

NON-GONOCOCCAL

- ***Chlamydia trachomatis***
- ***Trichomonas vaginalis***
- ***Mycoplasma genitalium***
- ***Ureaplasma urealyticum***

URETHRAL DISCHARGE

- *Nesseria gonorrhoeae*…… 80–95 %
  - Ceftriaxone….spectinomycin
- *Chlamydia trachomatis*……+/-40 %
  - Tetracycline group
- *Trichomonas vaginalis*…… 3 – 5 %
  - Metronidazole
- *Mycoplasma genitalium* ..... 5 – 7%
- *Ureaplasma urealyticum*……1- 5 %
  - Tetracycline group

PROTOCOL 1

URETHRAL DISCHARGE & SWOLLEN TESTIS

Confirm discharge

Confirm painful and swollen testis

Refer immediately if torsion of testis suspected:

no discharge or history of discharge

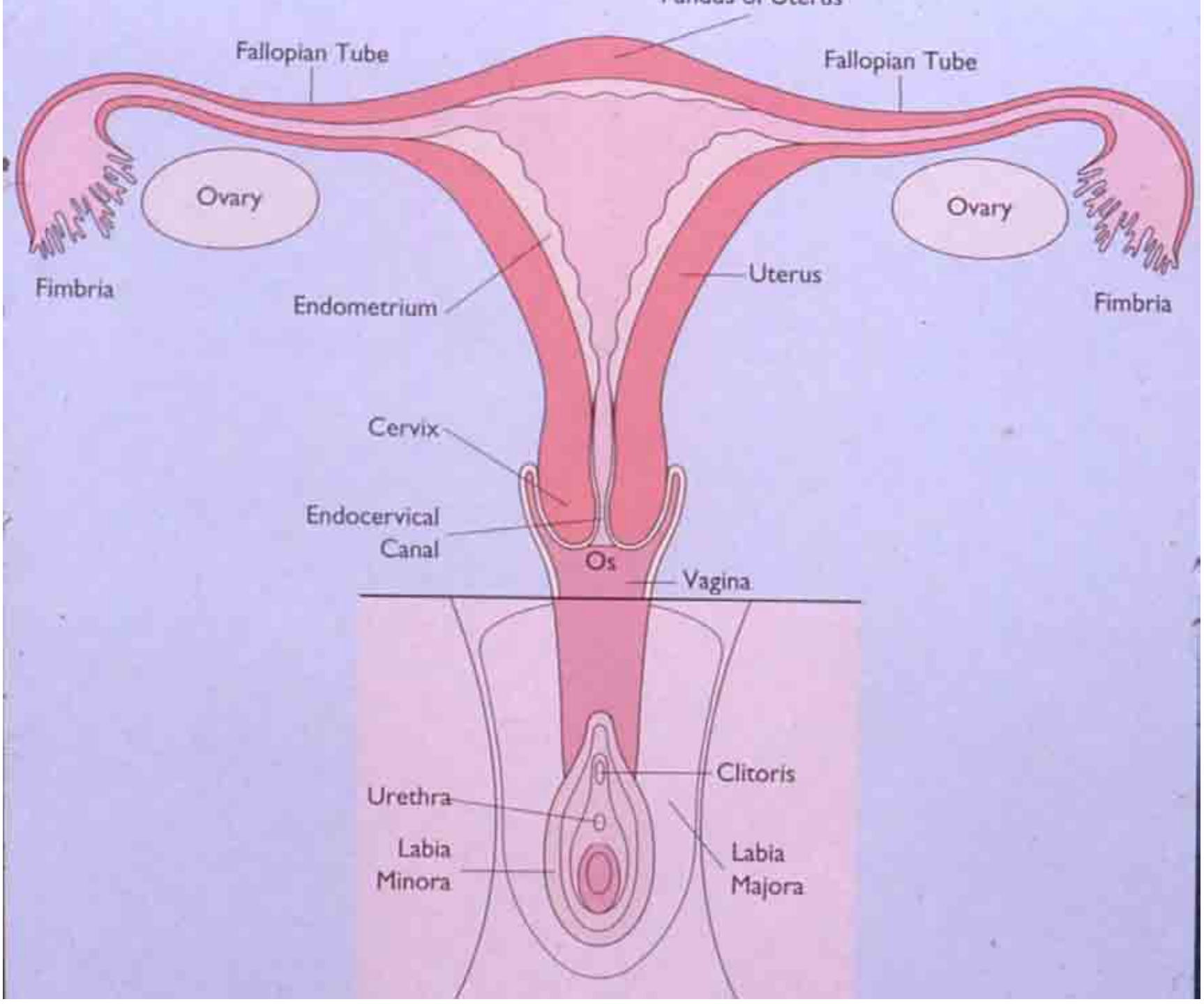
< 18 yrs old or not sexually active

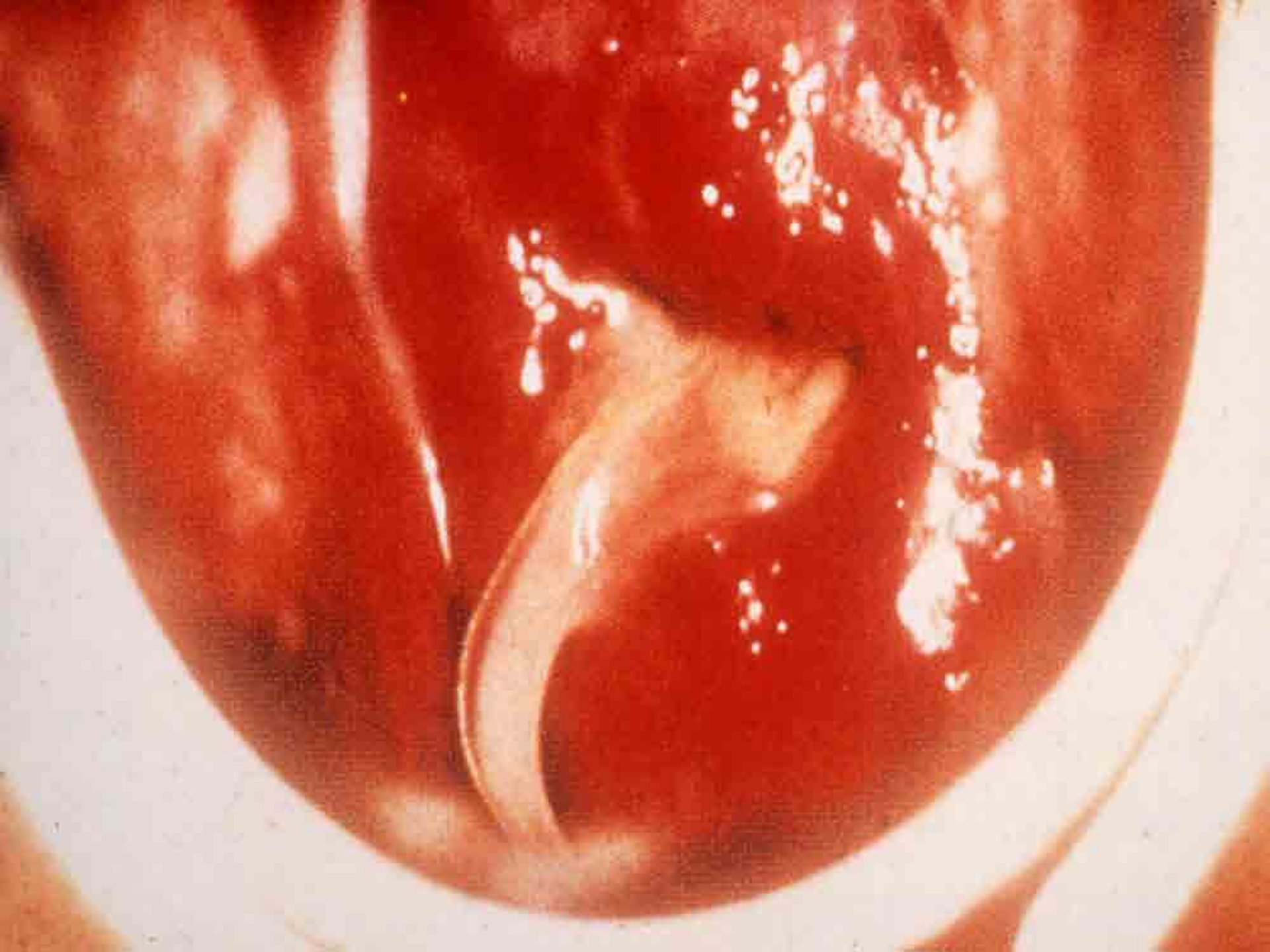
history of trauma

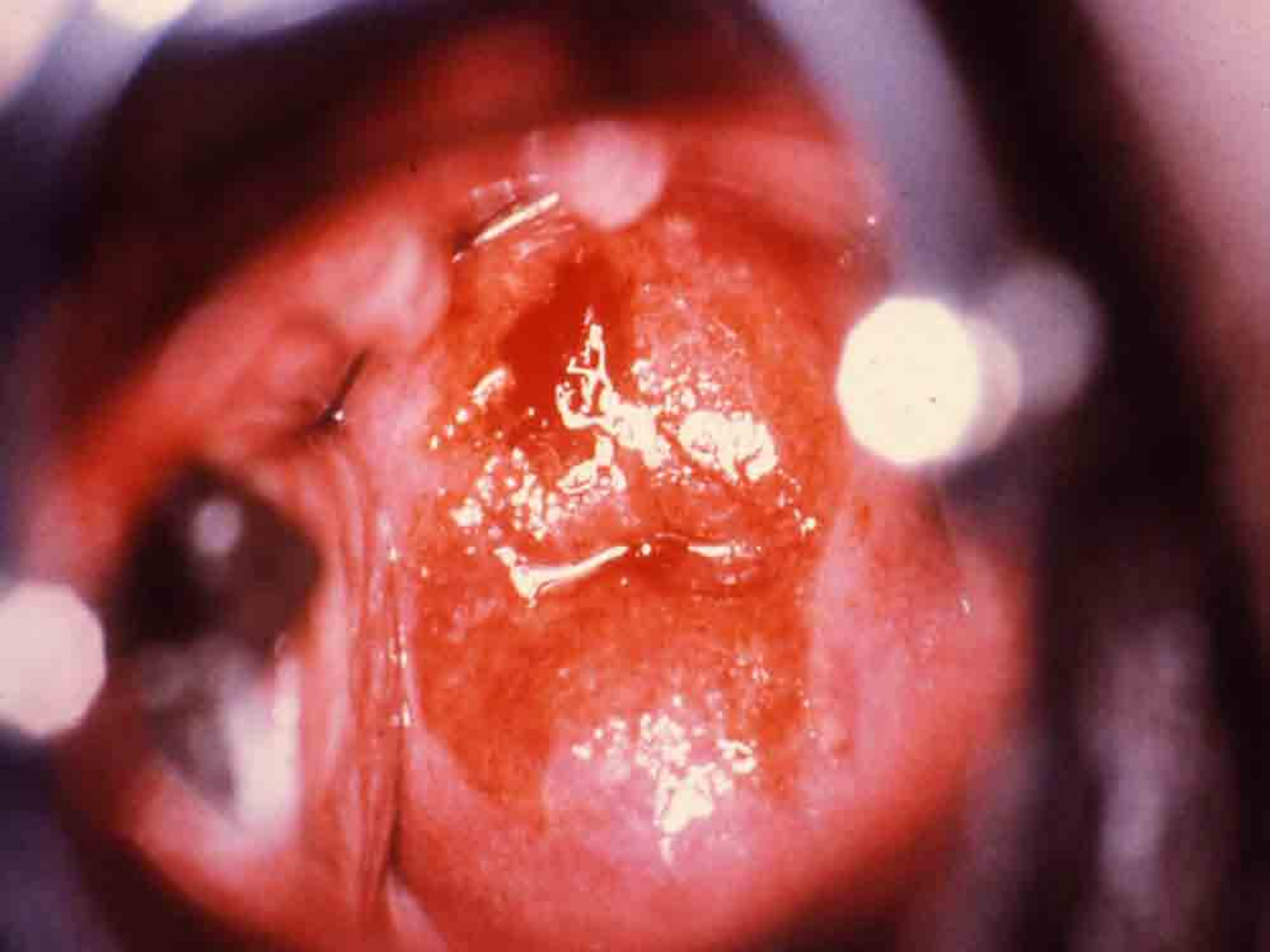
CIPROFLOXACIN 500 mg p.o stat
PLUS
DOXYCYCLINE 100 mg p.o BD for 7 days

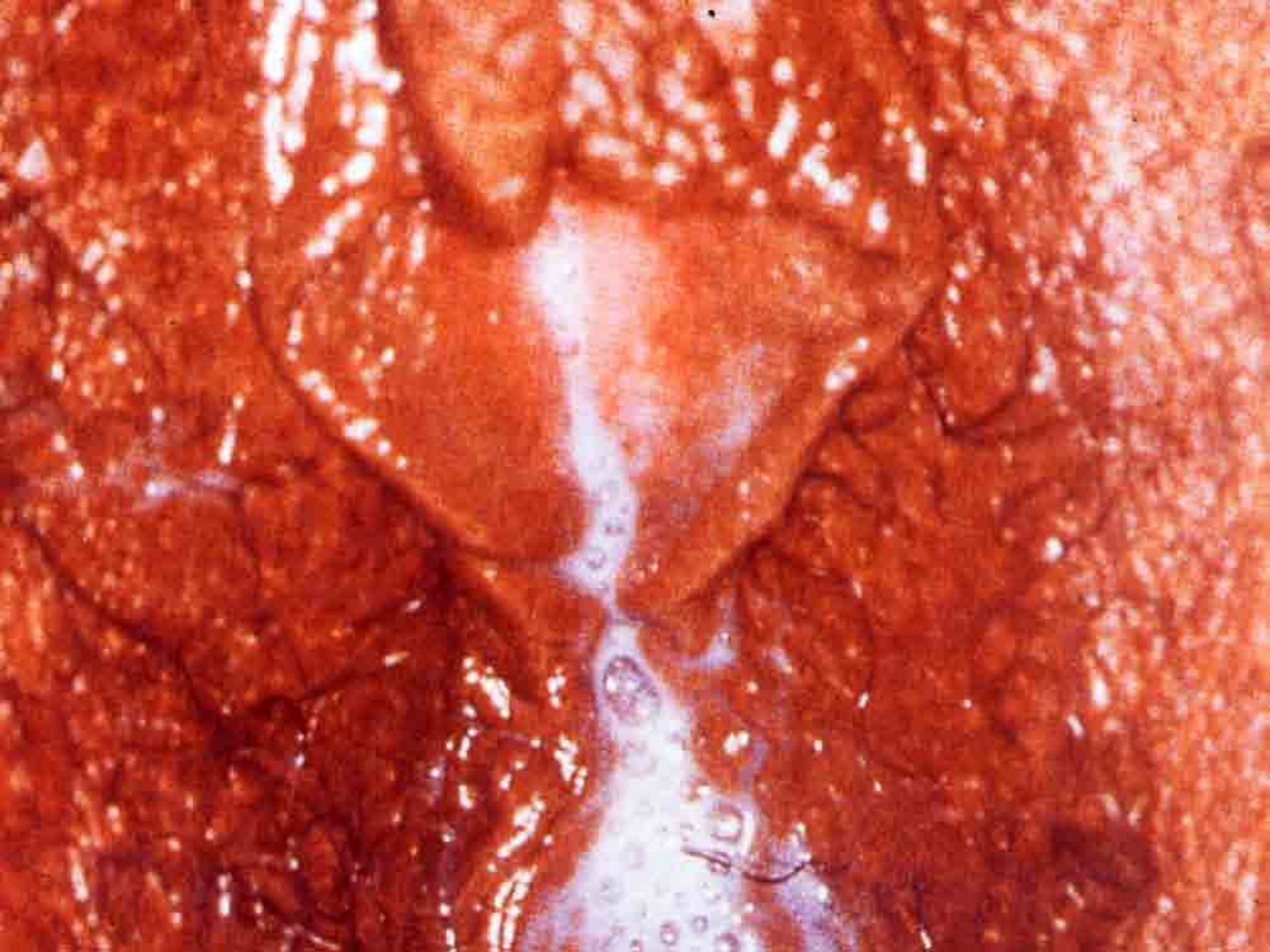
anage partner(s) for cervical infection as in protocol 3.

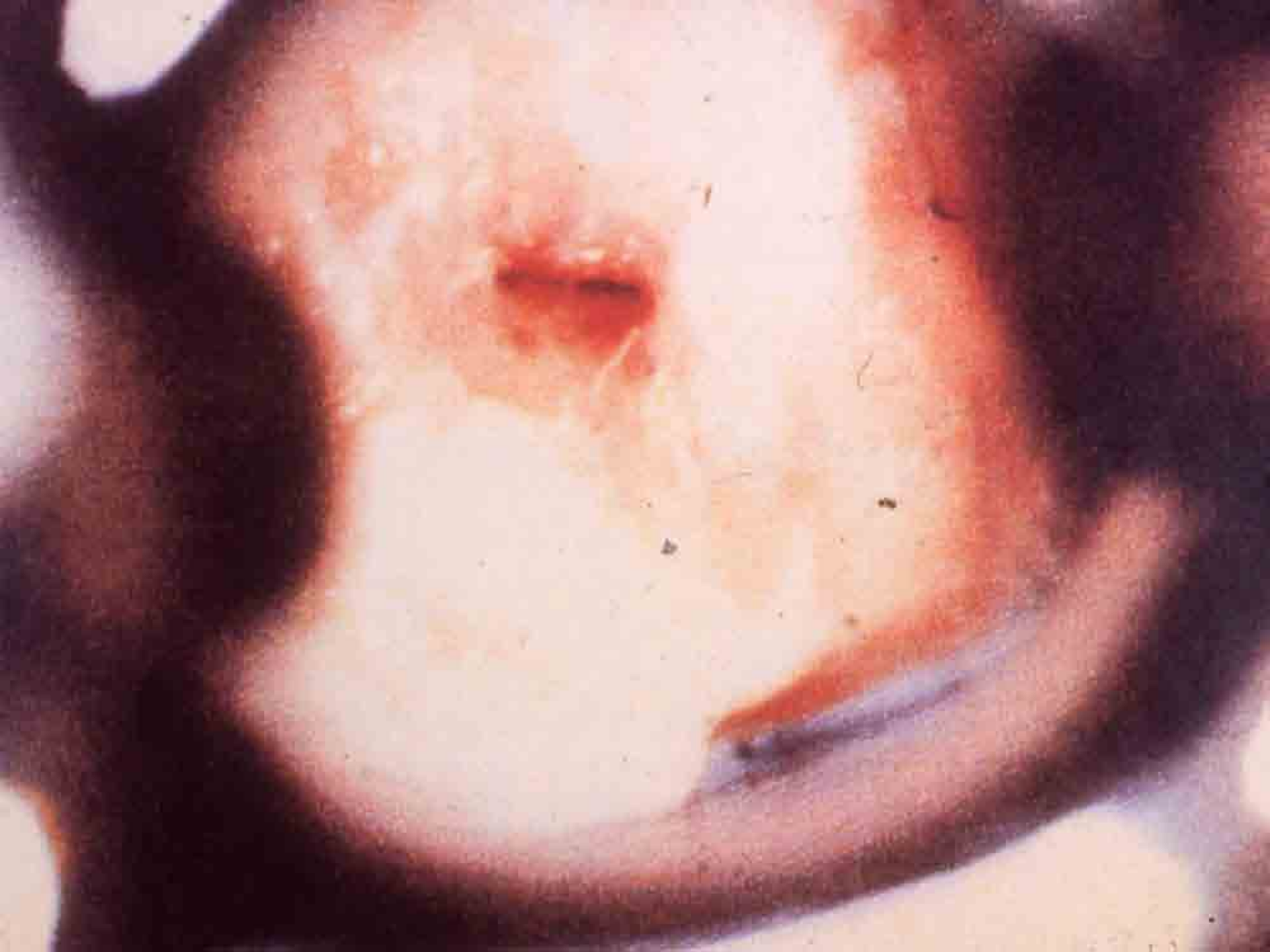
Ceftriaxone 250 mg IMI
PLUS
Doxycycline 100mg po BD for 7 days/
Or
Azithromycin 1gm po stat


Fallopian Tube
Fallopian Tube
Ovary
Ovary
Fimbria
Endometrium
Uterus
Fimbria
Cervix
Endocervical
Canal
Os
Vagina
Clitoris
Urethra
Labia
Minora
Labia
Majora









VAGINAL DISCHARGE AND LOWER ABDOMINAL PAIN

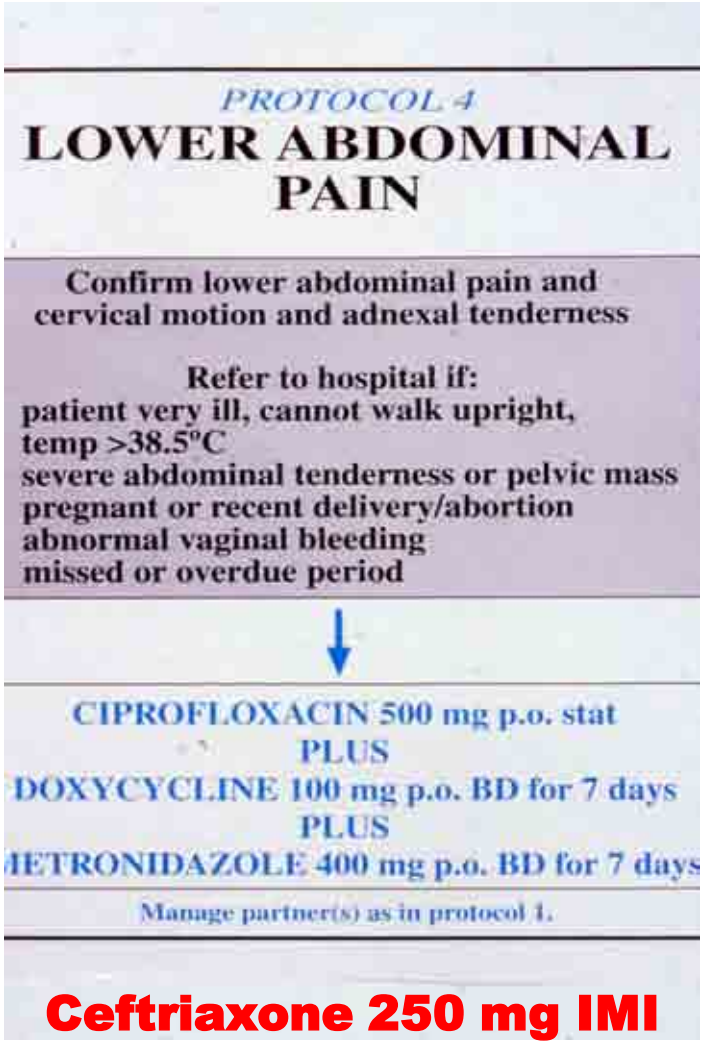
- **CLINICAL CONSIDERATIONS**
  - Ascending infection
  - Mixed vaginal & cervical infections
  - Mild PID vs. severe PID
  - Exclude puerperal sepsis, AUB, ectopic pregnancy

- **EPIDEMIOLOGICAL CONSIDERATIONS**
  - Aetiological agents
  - Antimicrobial profile

VAGINAL DISCHARGE AND LOWER ABDOMINAL PAIN

- **CERVICAL DISCHARGE**
  - *Nesseria gonorrhoeae*
  - *Chlamydia trachomatis*

- **VAGINAL DISCHARGE**
  - *Trichomonas vaginalis*
  - *Candida albicans*
  - *Gardnerella vaginalis* (BACTERIAL VAGINOSIS)

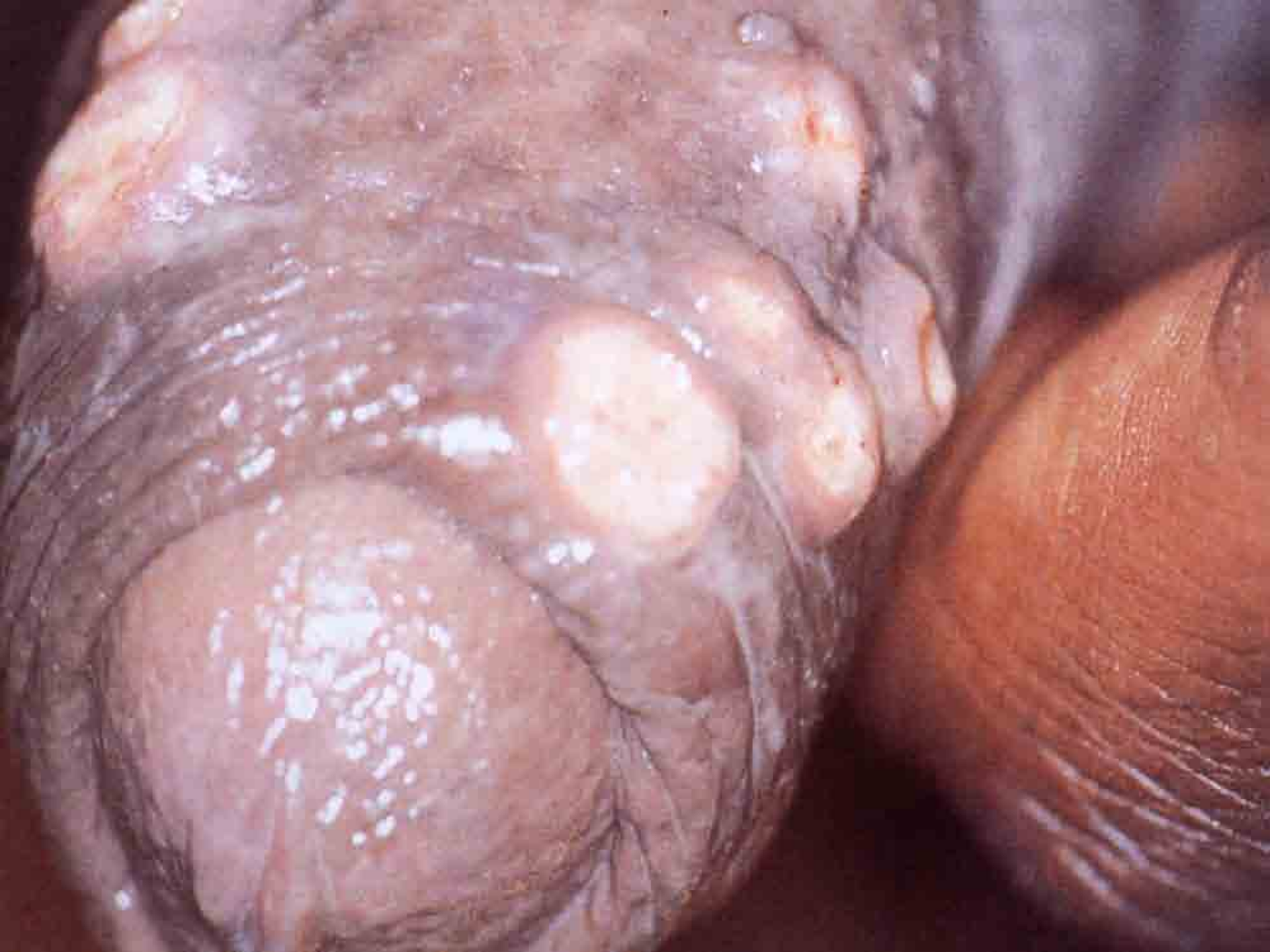


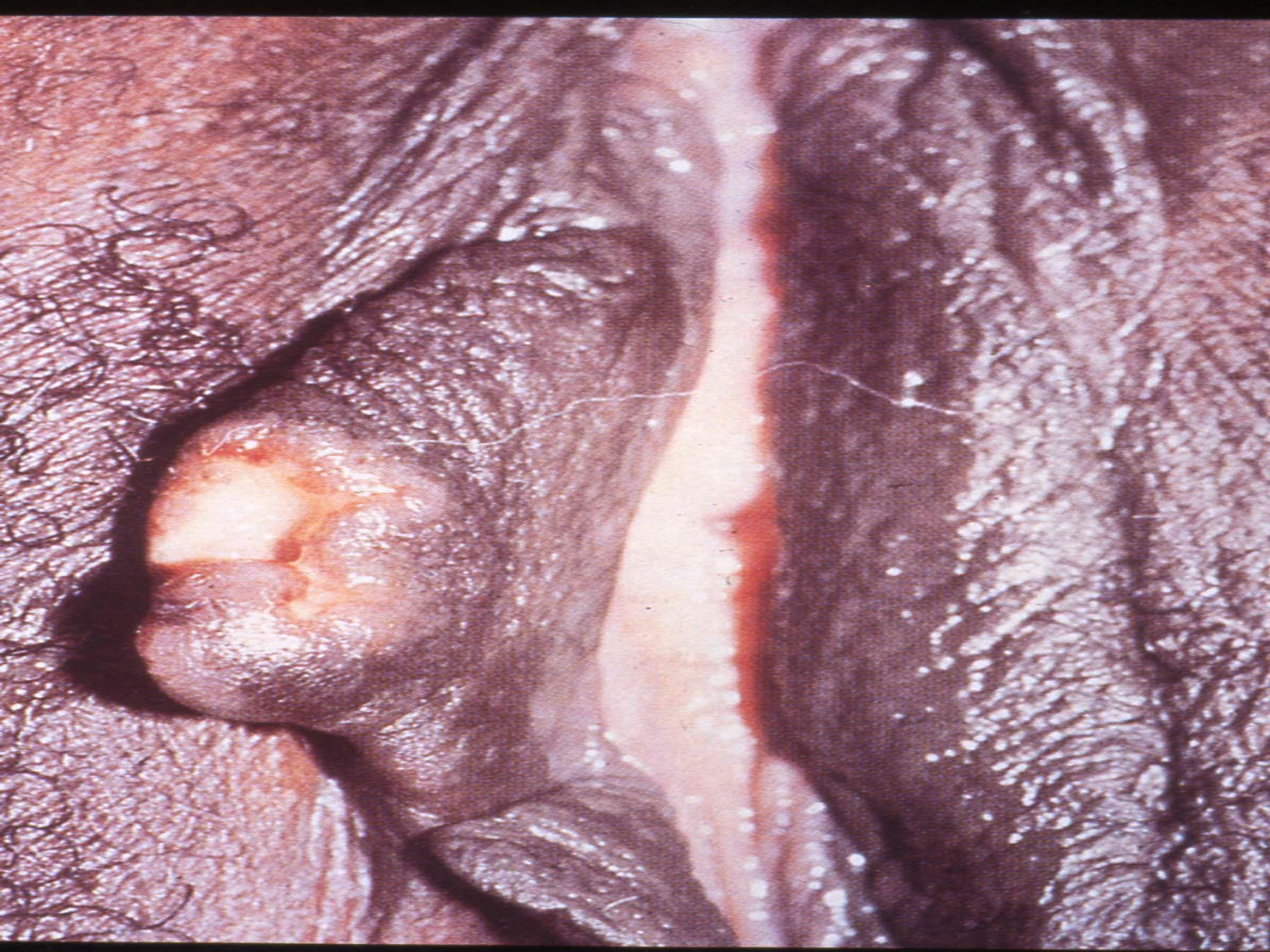
Ceftriaxone 250 mg IMI
PLUS
Doxycycline 100mg po BD for 7 days/
Or
Azithromycin 1gm po stat
Plus
Metronidazole 400mg BD for 7 days

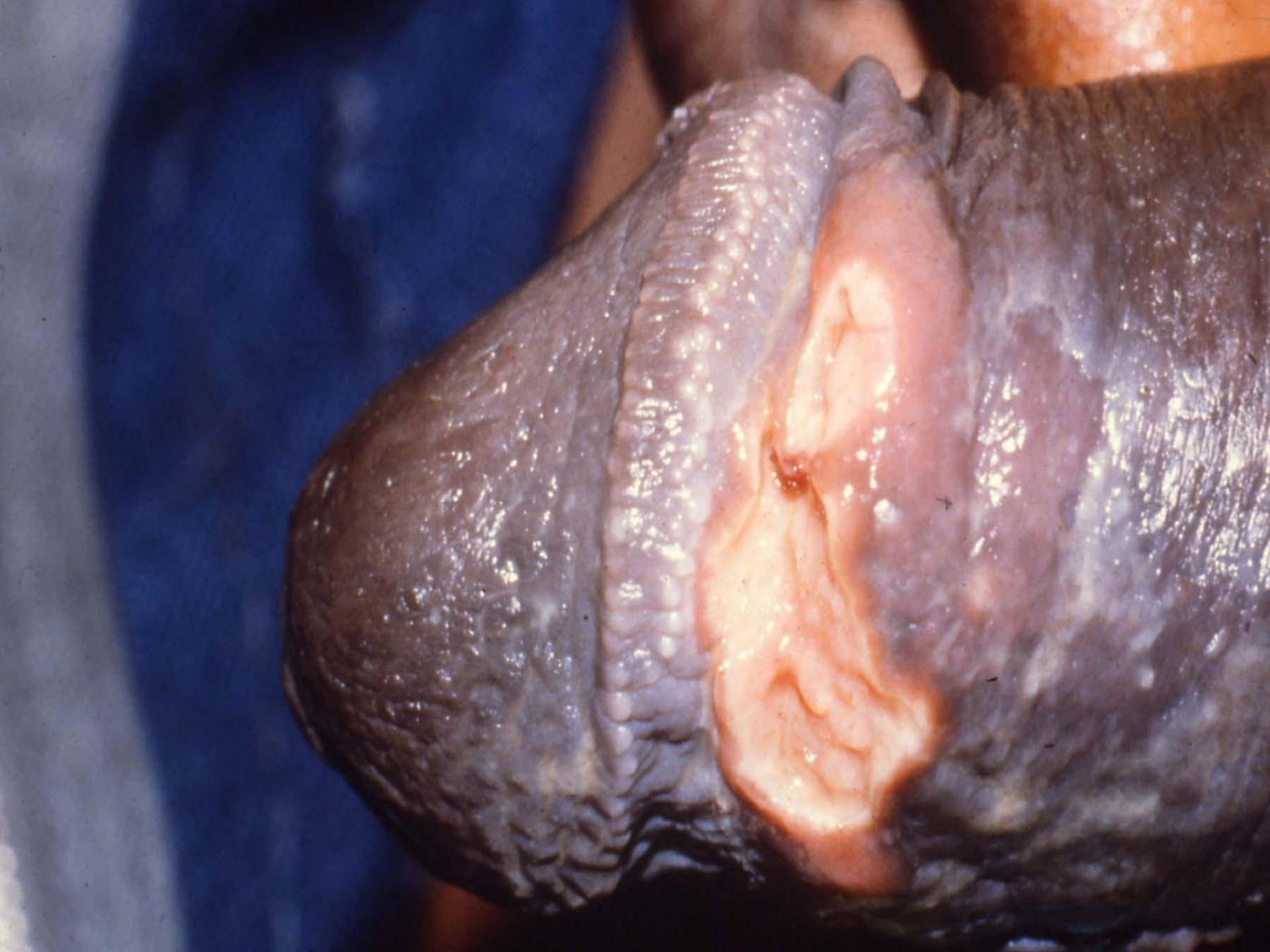
AETIOLOGY OF SEXUALLY ACQUIRED GENITAL ULCER DISEASE (GUD)

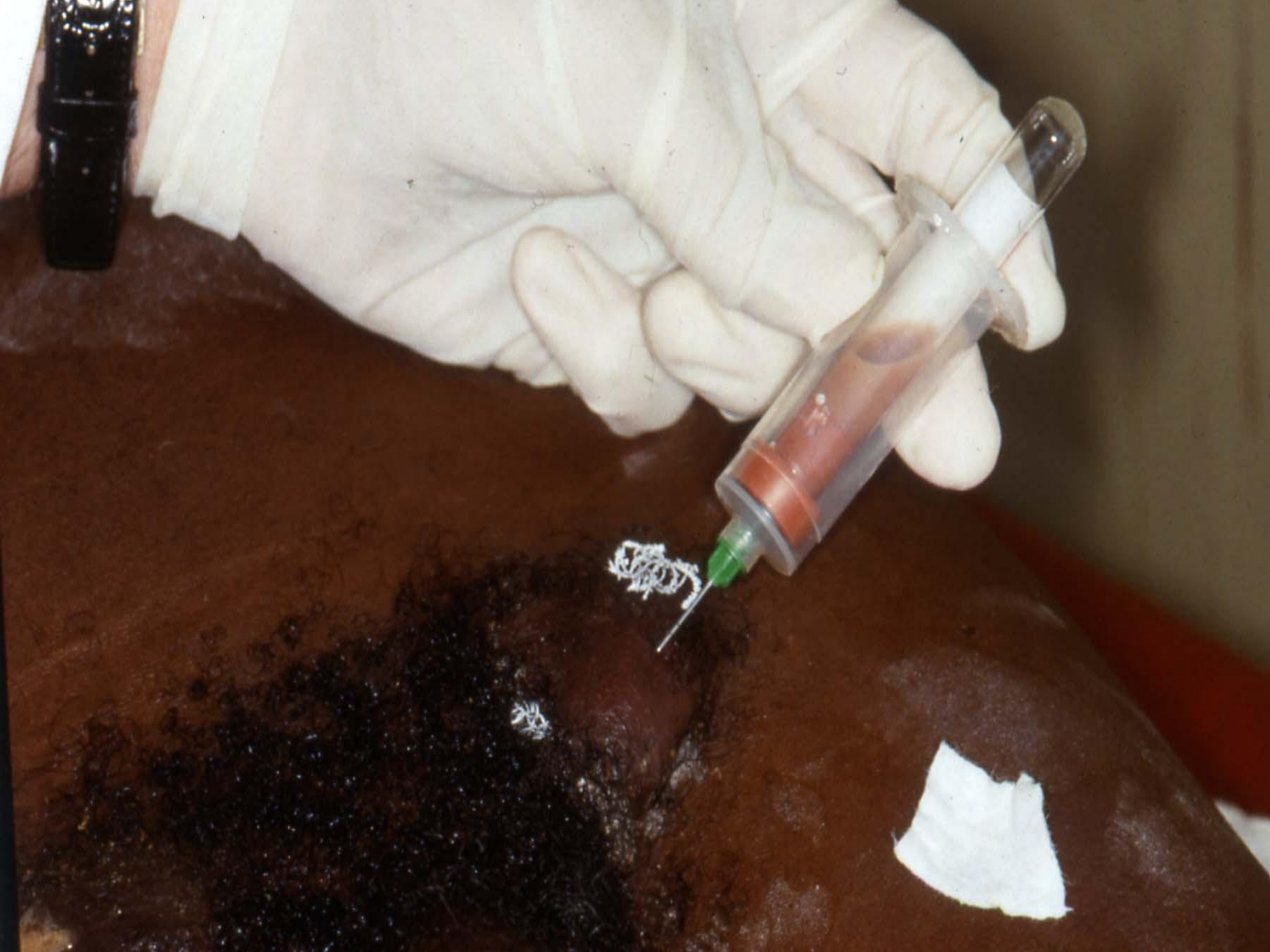
1) SYPHILIS
2) CHANCROID
3) HERPES GENITALIS
4) Lympho-granuloma venereum (LGV)
5) GRANULOMA INGUINALE (DONOVANOSIS)

- *Treponema pallidum*
- *Haemophilus ducrei*
- Herpes simplex virus
- *Chlamydia trachomatis L1-3*
- *Calymmatobacterium granulomatis*









EPIDEMIOLOGY OF GENITAL ULCER DISEASE

- SYPHILIS 40%
- CHANCROID 40%
- HERPES 15%
- LGV 3%
- GI/DONOVAN 1%

- HERPES 60%
- SYPHILIS 30%
- CHANCROID 15%
- LGV 15%
- GI/DONOVAN 3%

PROTOCOL 2

Genital ulcers

- ❑ Confirm presence of ulcer(s) by examination. Look for other STD syndromes.

↓

- ❑ Benzathine Penicillin 2.4 MU IMI stat

  plus
- ❑ Erythromycin 500 mg p.o. TDS for 5 days
- ❑ Aspirate any fluctuant glands

Complete treatment
Counsel on safer sex and HIV risk
Condom promotion
Contact management

- ❑ If allergic to penicillin, give Erythromycin 500 mg QID for 14 days.
- ❑ If on return, lesion(s) healing but not cured: ie. decrease in size or decrease in number, continue with another course of Erythromycin. If lesions are worse, **refer**.

TREATMENT STRATEGY

- TREAT FOR SYPHILIS AND CHANCROID PLUS ? HERPES
- HIV INFLUENCE
- SHIFT IN FREQUENCY