

Diagnosis of
genital
system
infections

Diagnosis of genital system infections

Q1: Identify this condition and state causative organism.

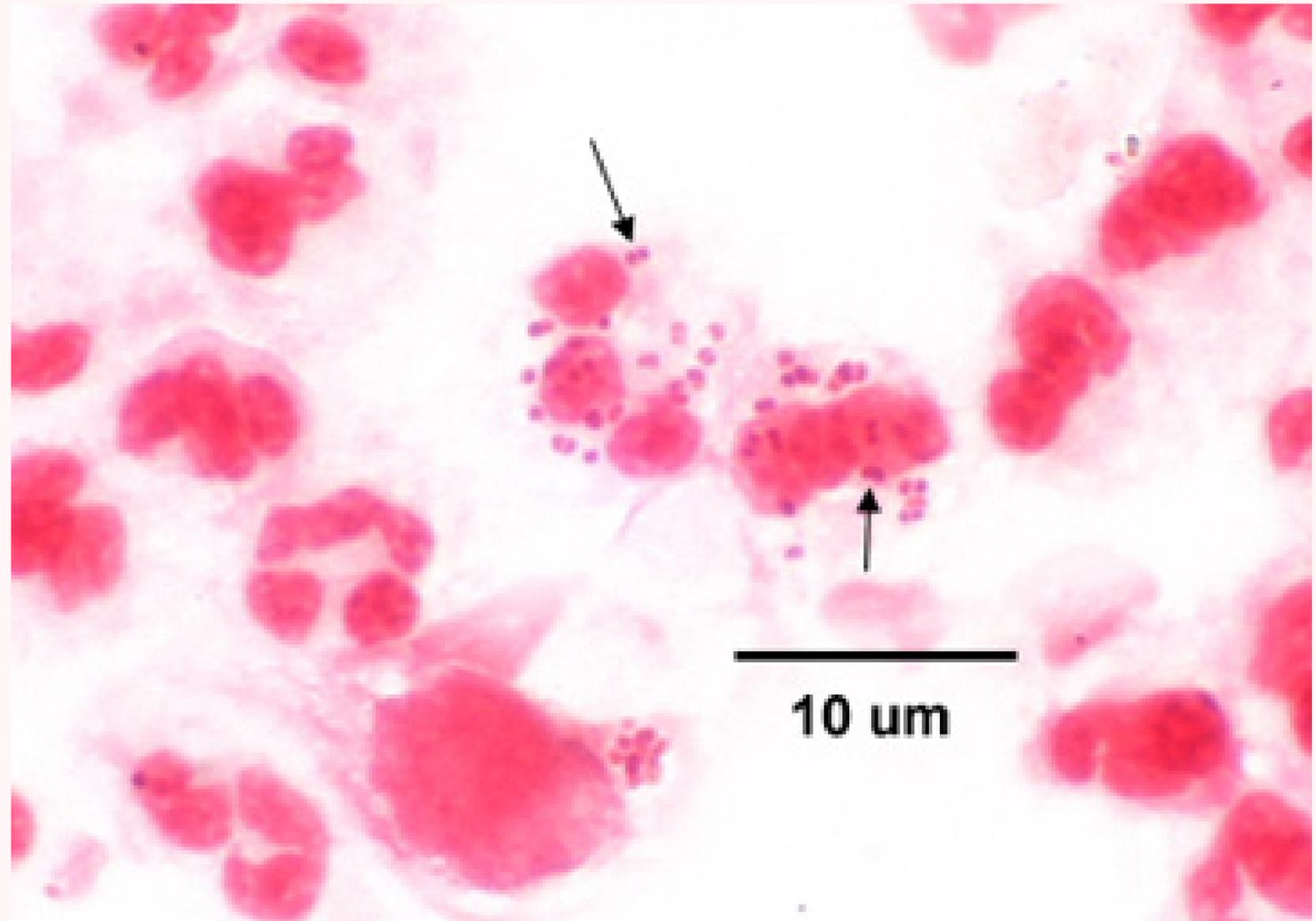
- Ophthalmia neonatorum caused by *Neisseria gonorrhoea*.



Diagnosis of genital system infections

Q2: Identify this stained film.

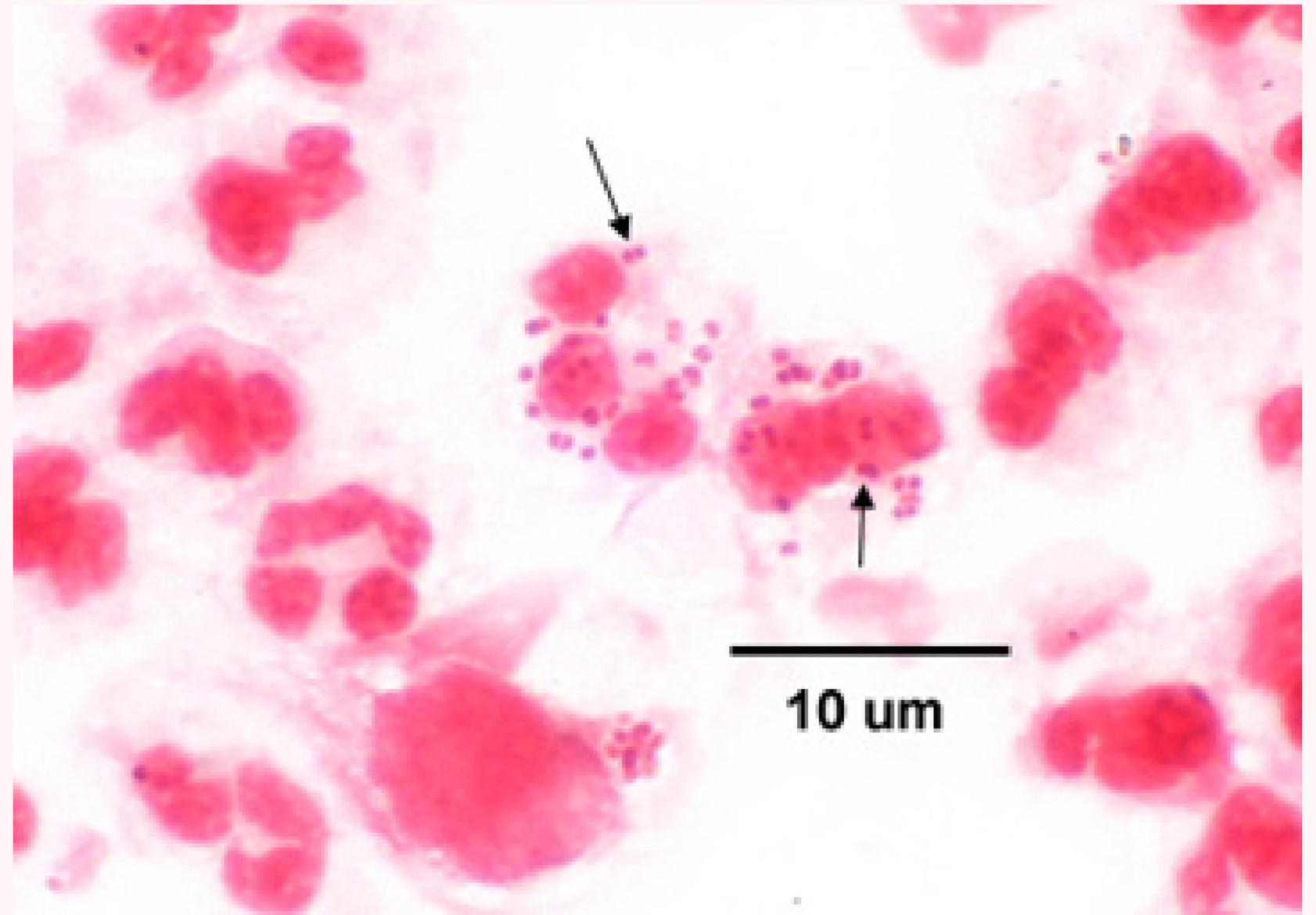
- Gram-negative, diplococci, piliated.
- Intracellular.
- (*Neisseria gonorrhoea*).



Diagnosis of genital system infections

Q3: State cultural characters of the organism isolated in this stained film.

- Aerobic.
- Optimum temperature: 37 °C, with narrow temperature range (30-38°C), no growth at 22°C.
- 10% Co₂ and moist atmosphere are required for growth.



Diagnosis of genital system infections

Q4: Report culture media of the organism isolated in this stained film.

- Ordinary media: no growth.
- Enriched media: chocolate agar plate.
- Selective media: Thayer-Martin agar.

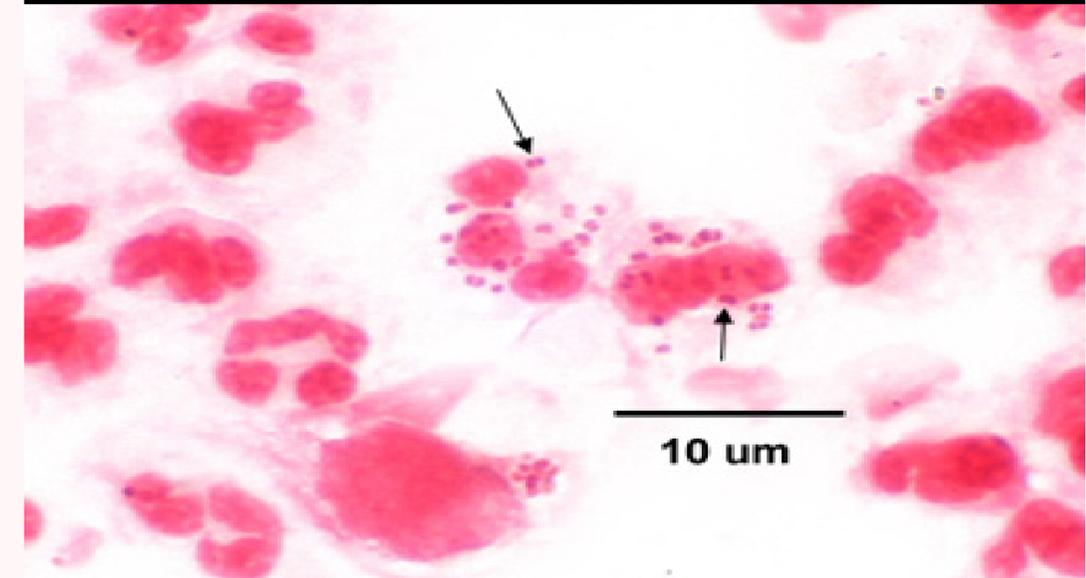
Q5: State type of this media.

- enriched media.

Q6: Identify this media.

- Chocolate agar plate

Q7: List samples obtained from male or female patients for diagnosis.

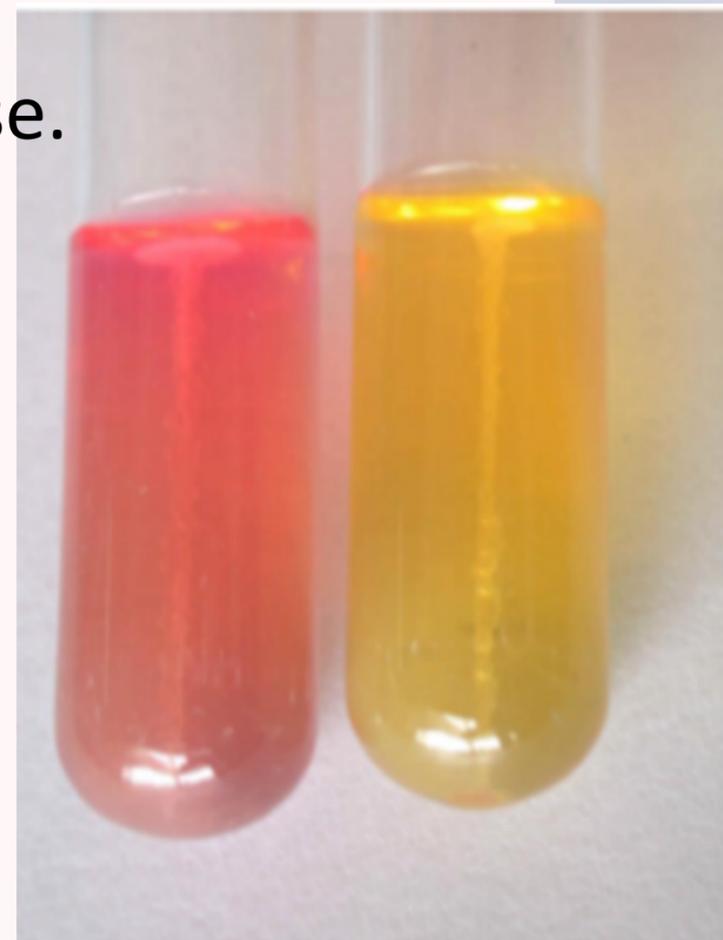
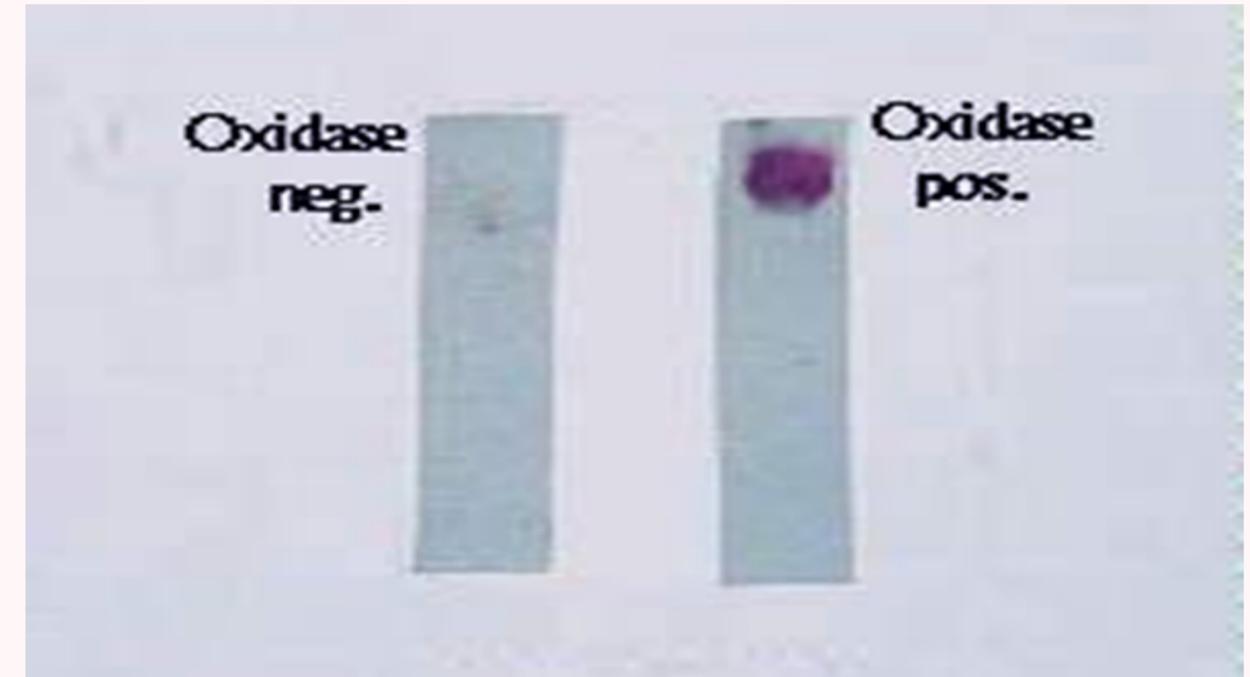


Q8: Report the fermentive action of *neisseria meningitidis* on these sugars.

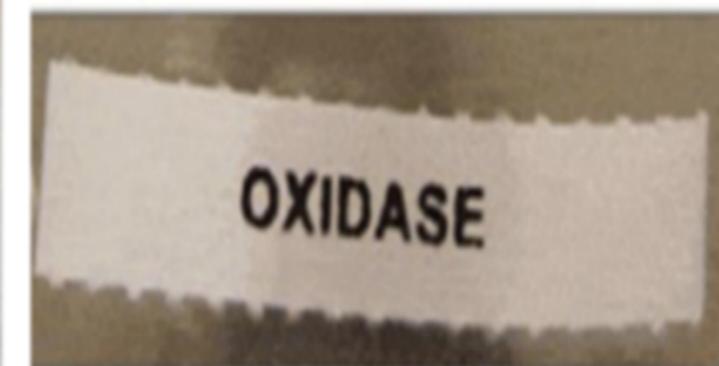
- Sugar fermentation: glucose only (acid production only).
- No fermentation of maltose and sucrose.

Q9: Identify this test and its value in Diagnosis of *neisseria gonorrhoea*.

- Oxidase test, it is oxidase positive.



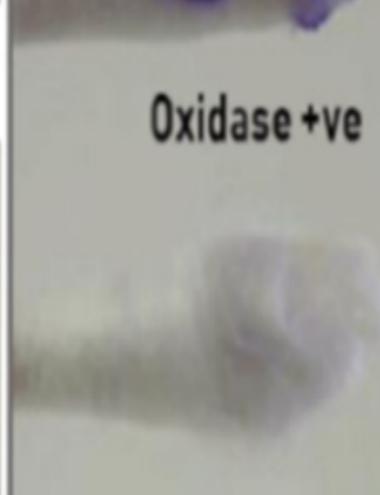
Oxidase positive



Oxidase negative



Oxidase +ve



Oxidase -ve

Diagnosis of genital system infections

Q11: identify this film.

Q12: state type of microscope.

- Unstained 'fresh wet' film

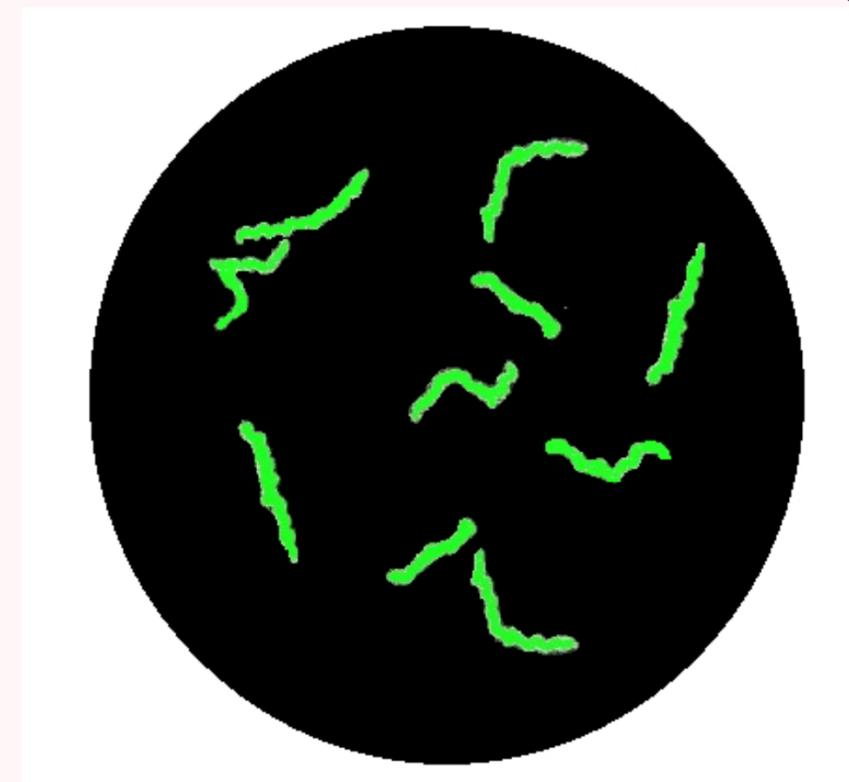
Examined with dark field microscope for motile treponemas.



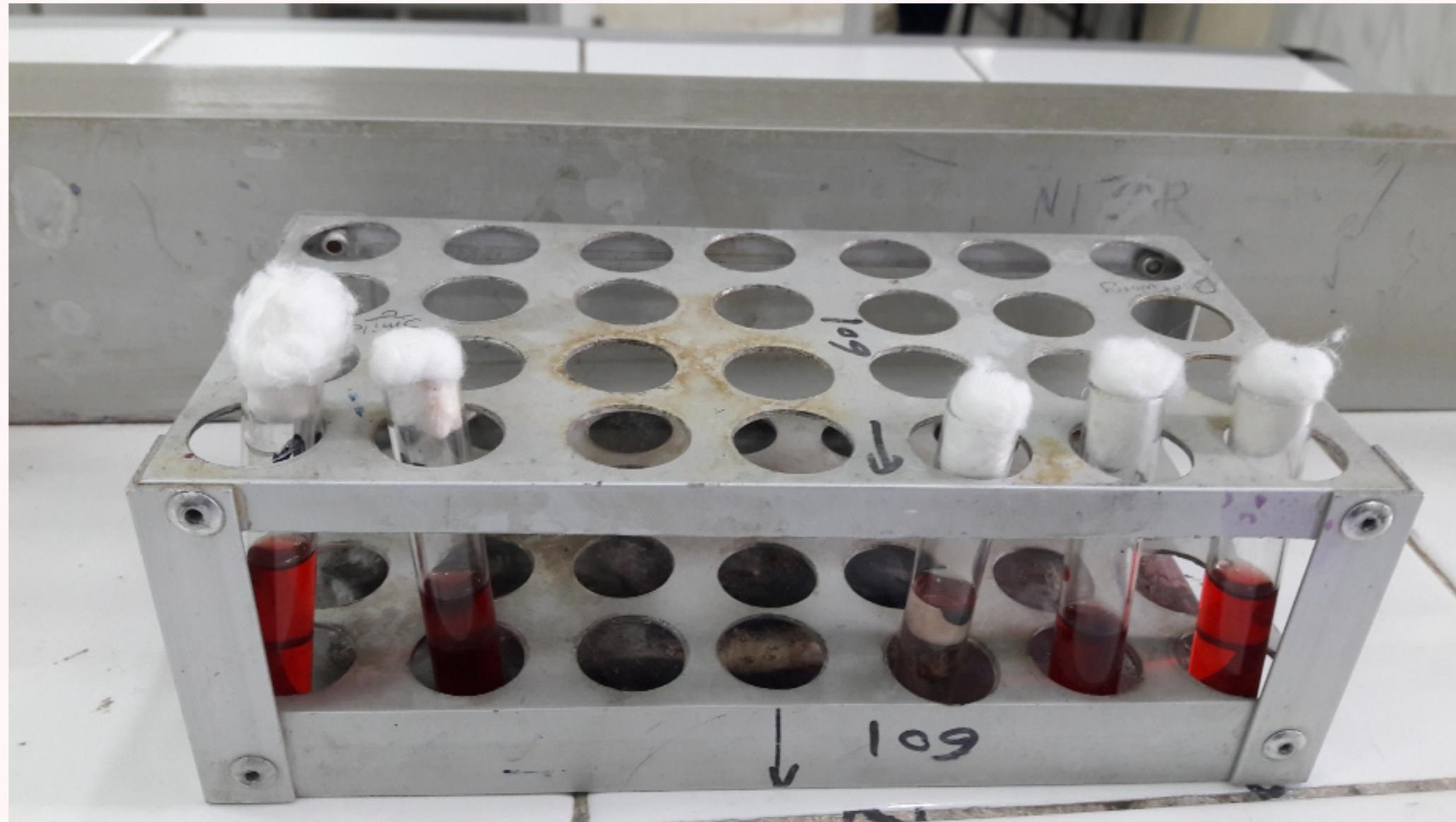
Q13: identify this film.

Q14: state type of microscope.

- Direct immune fluorescence (IF) Using fluorescein-labelled anti-treponemal antibodies examined by fluorescent microscope

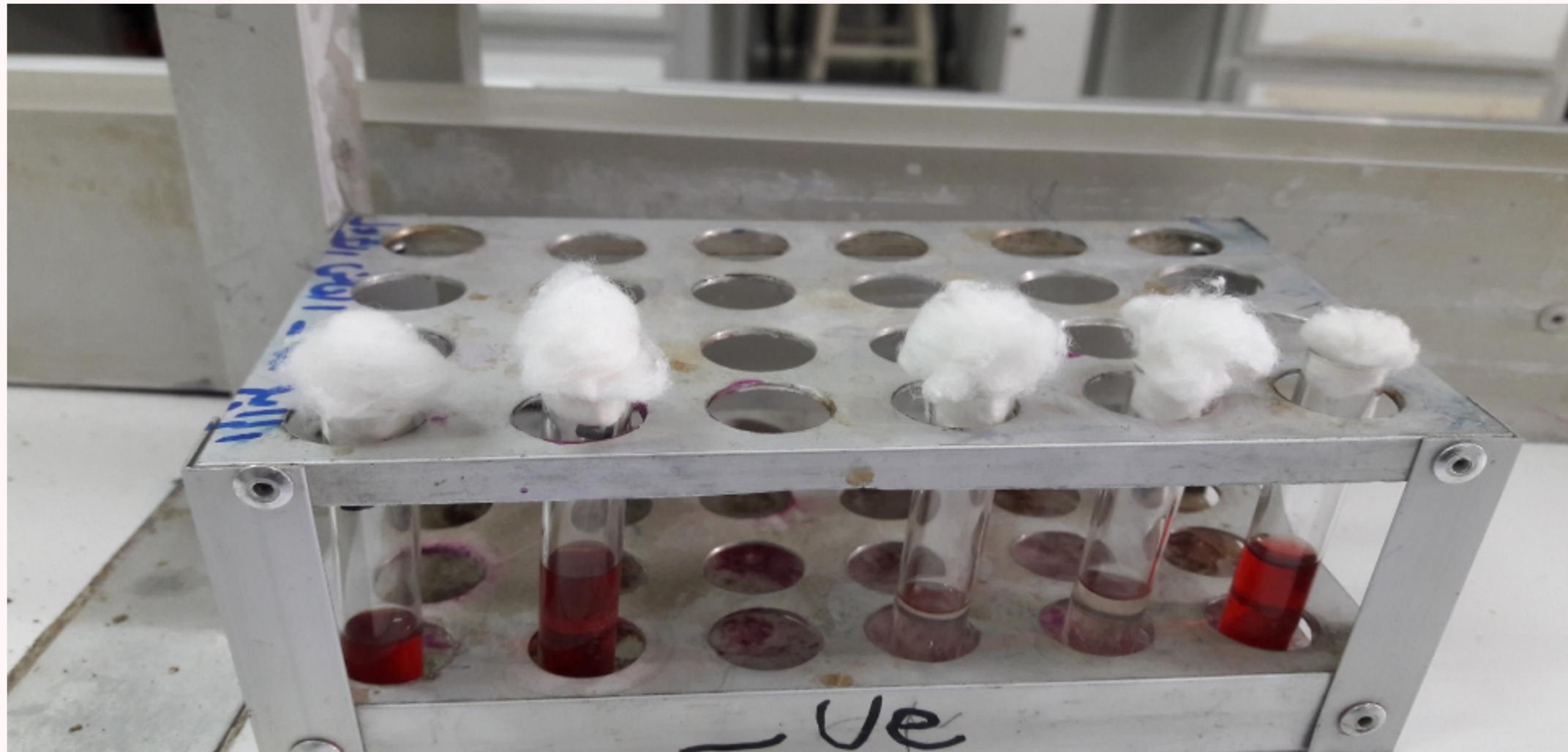


Diagnosis of genital system infections



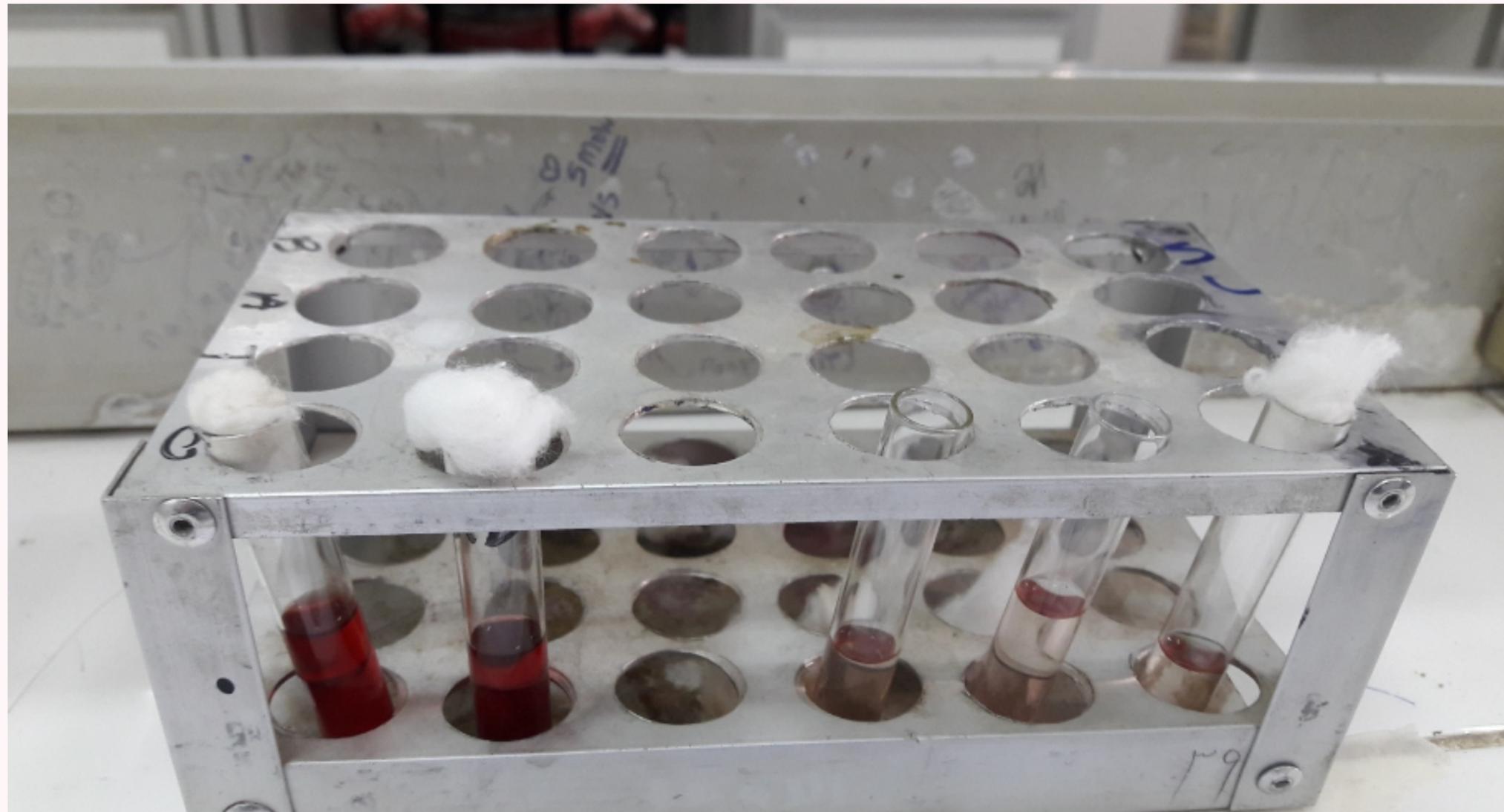
**Wassermann test
(Mild positive)**

Diagnosis of genital system infections



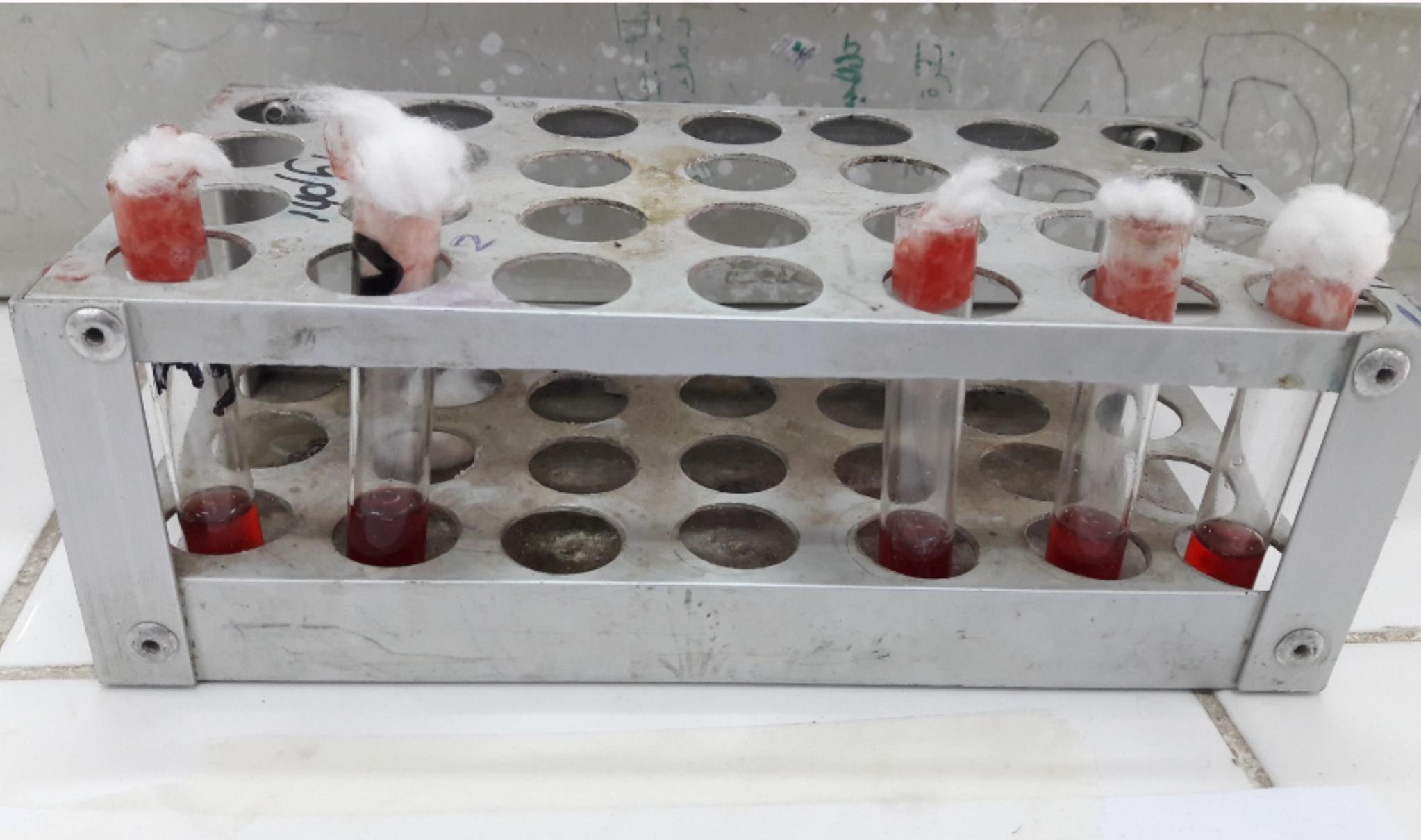
**Wassermann test
(Moderate positive)**

Diagnosis of genital system infections



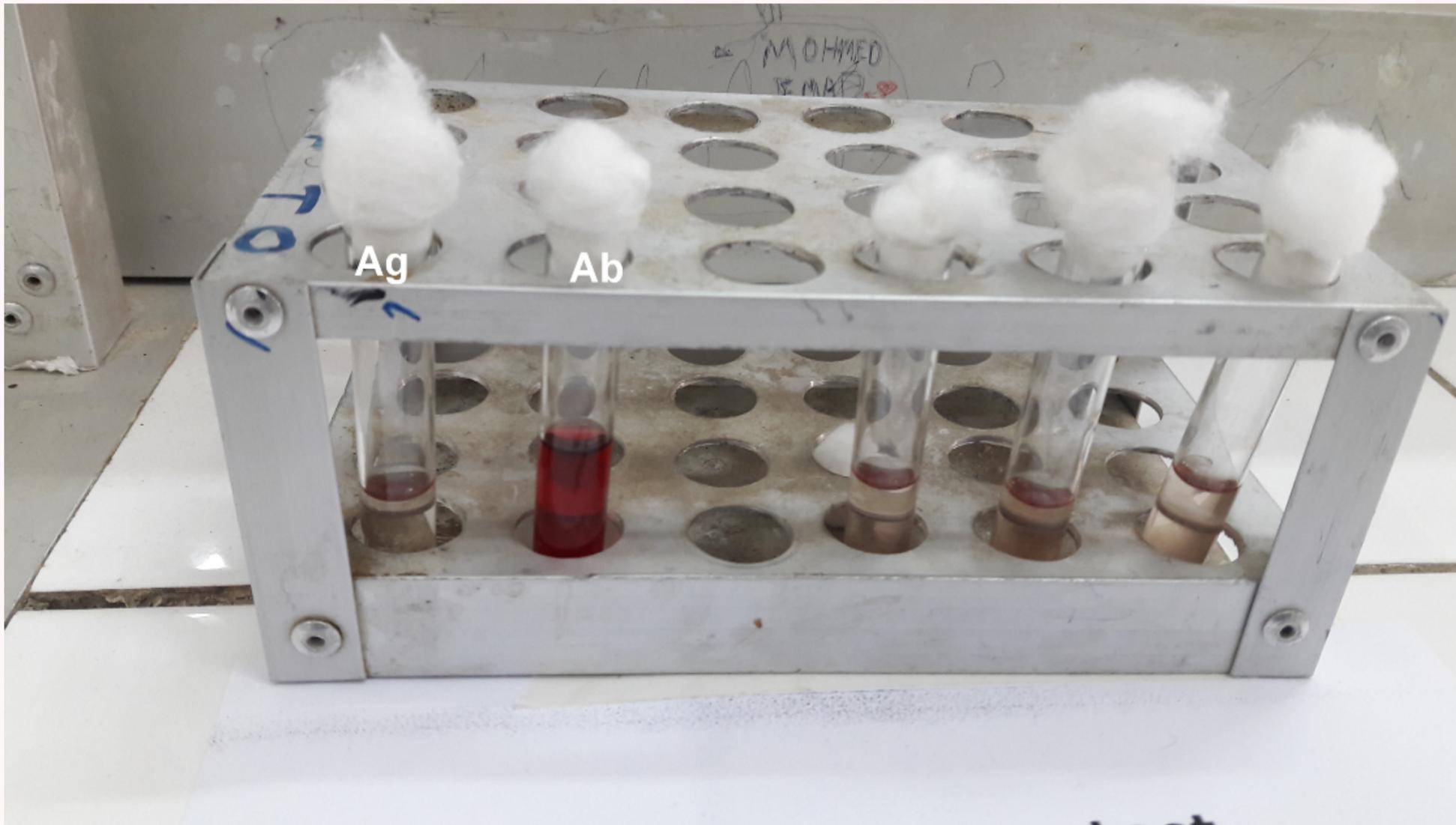
**Wassermann test
(Strong positive)**

Diagnosis of genital system infections



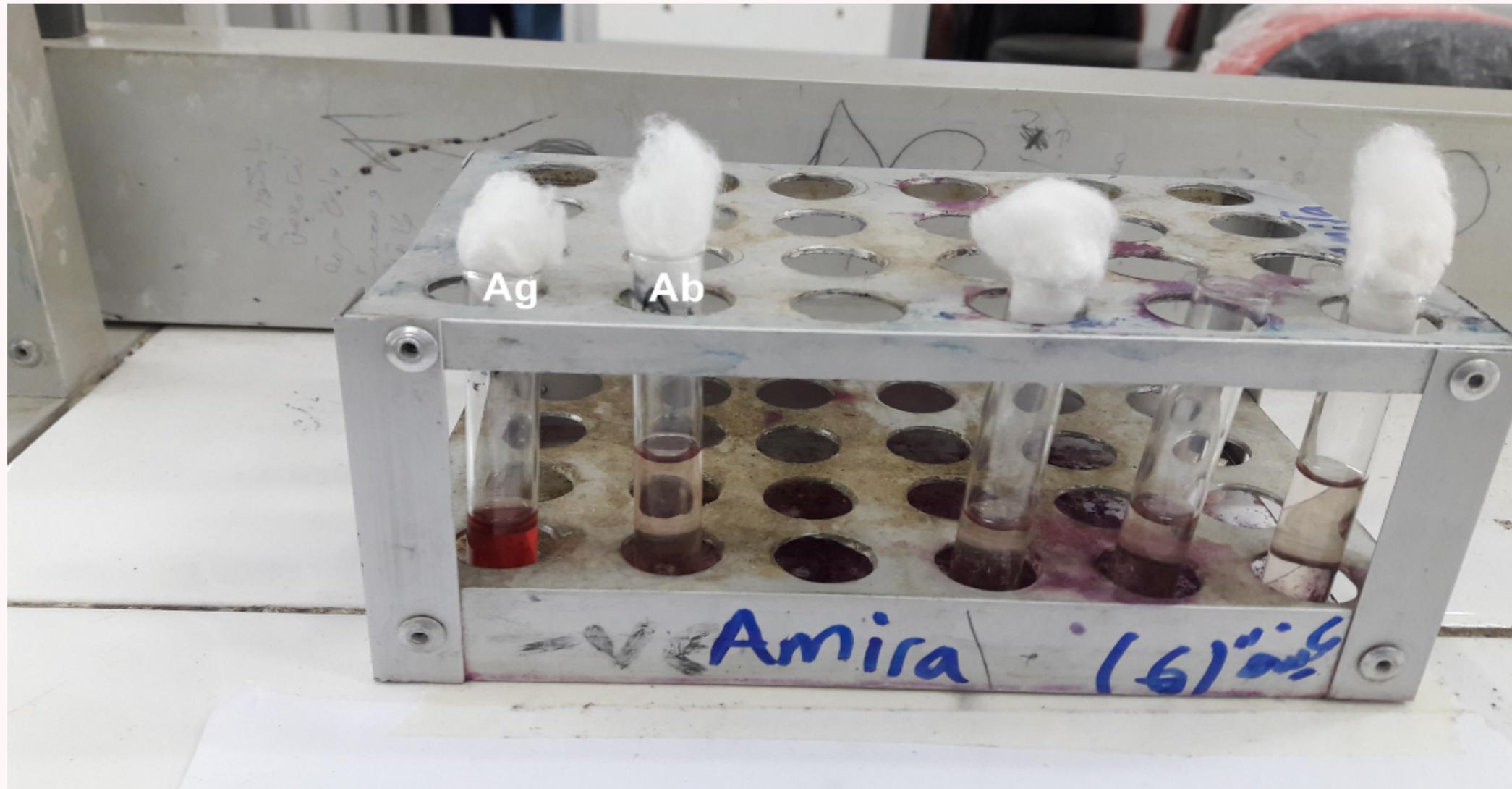
**Wassermann test
(Negative)**

Diagnosis of genital system infections



**Wassermann test
(Ag
anticomplementary)**

Diagnosis of genital system infections



**Wassermann test
(Ab
anticomplementary)**

Diagnosis of genital system infections

Q15: Identify.

Q16: State the immunologic principle for this reaction.

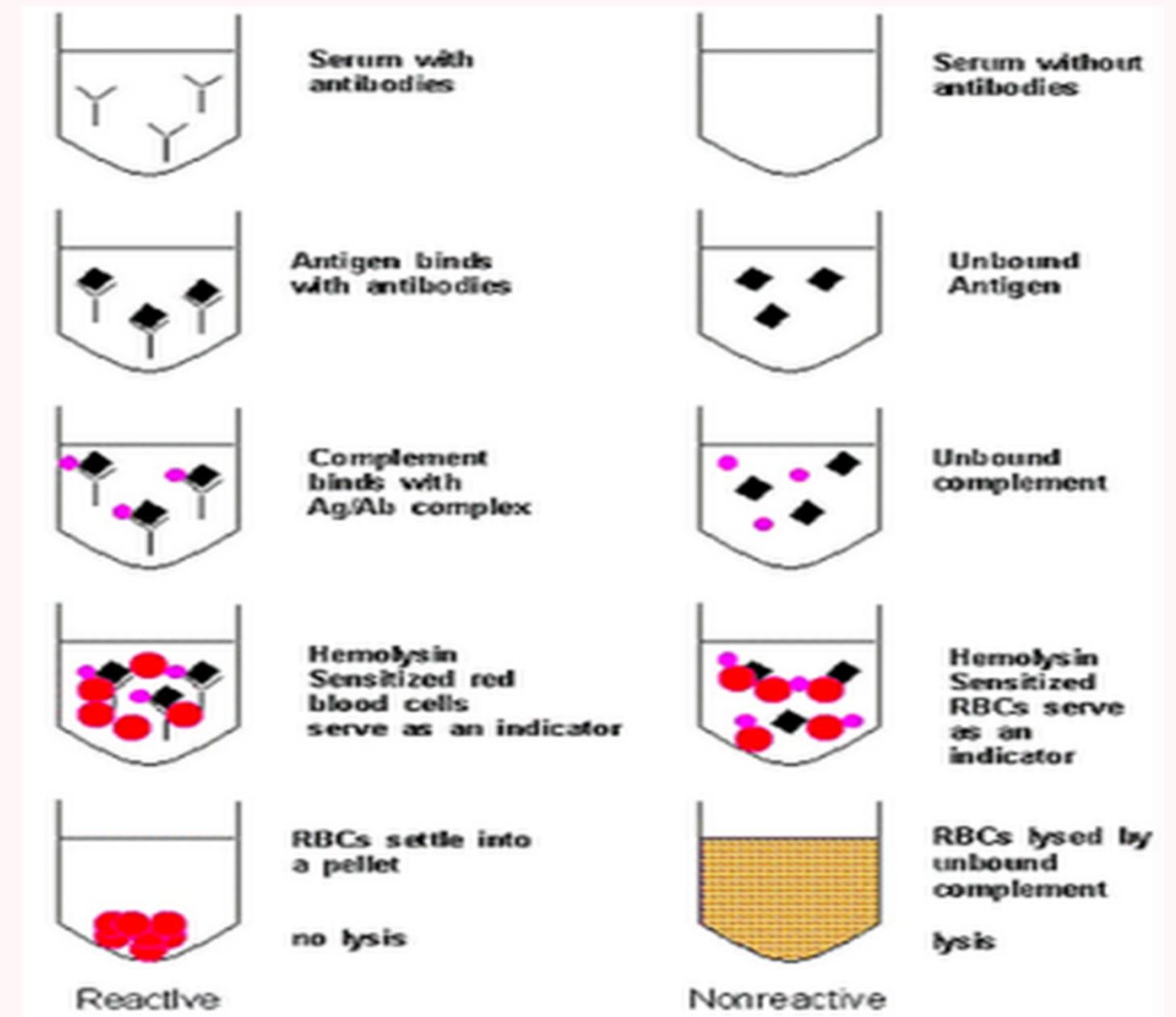
- Complement fixation test.

Q17: Give use for this test.

- Diagnosis of syphilis.

Q18: Name 2 treponemal antigen specific detection tests. (non specific)

Fluorescent T pallidum Antibody, Treponema pallidum immobilization (TPI) test, Treponema pallidum haemoagglutination (TPHA) test.



Diagnosis of genital system infections

Q19: identify this film.

Q20: state type of microscope.

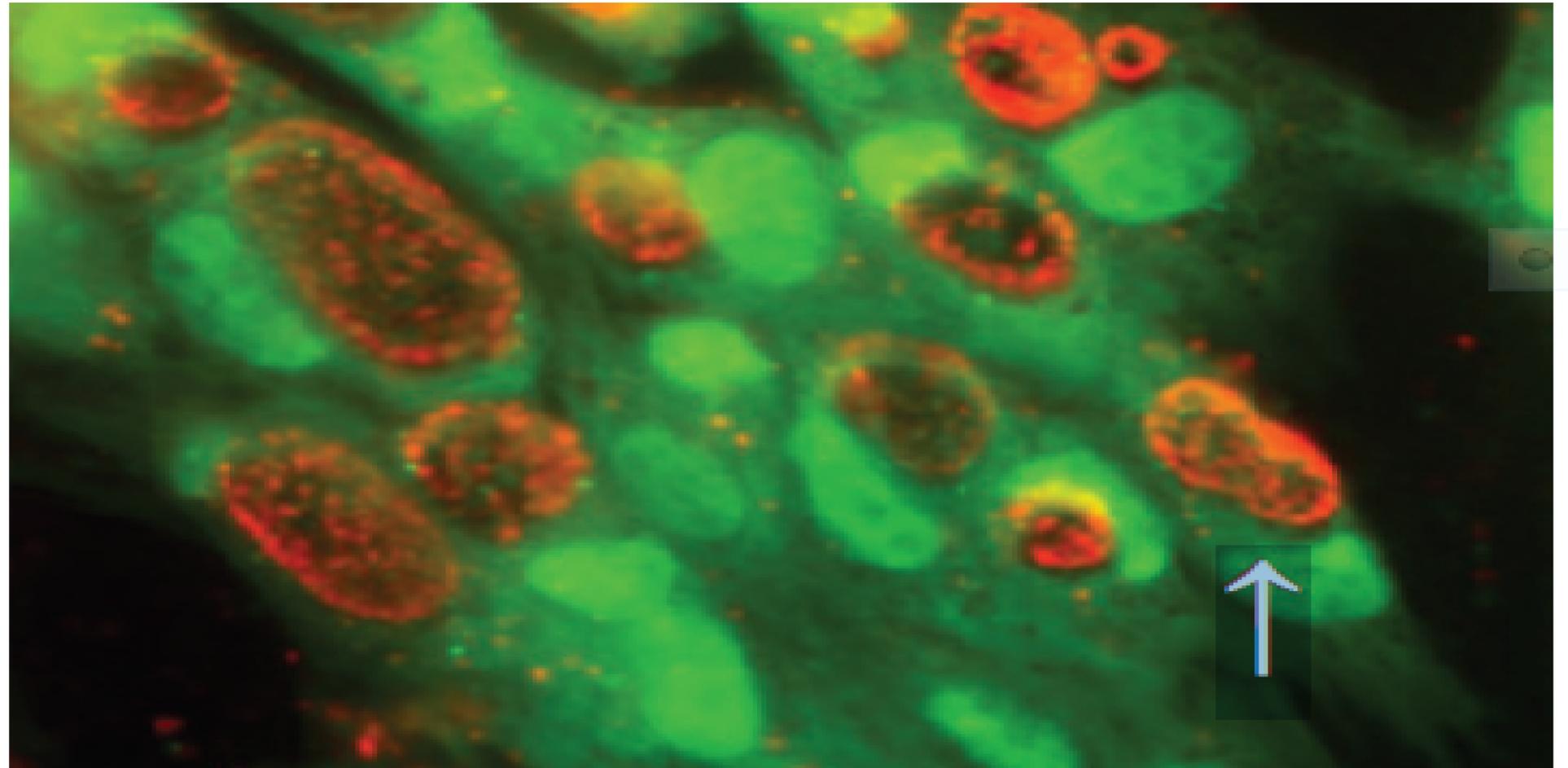
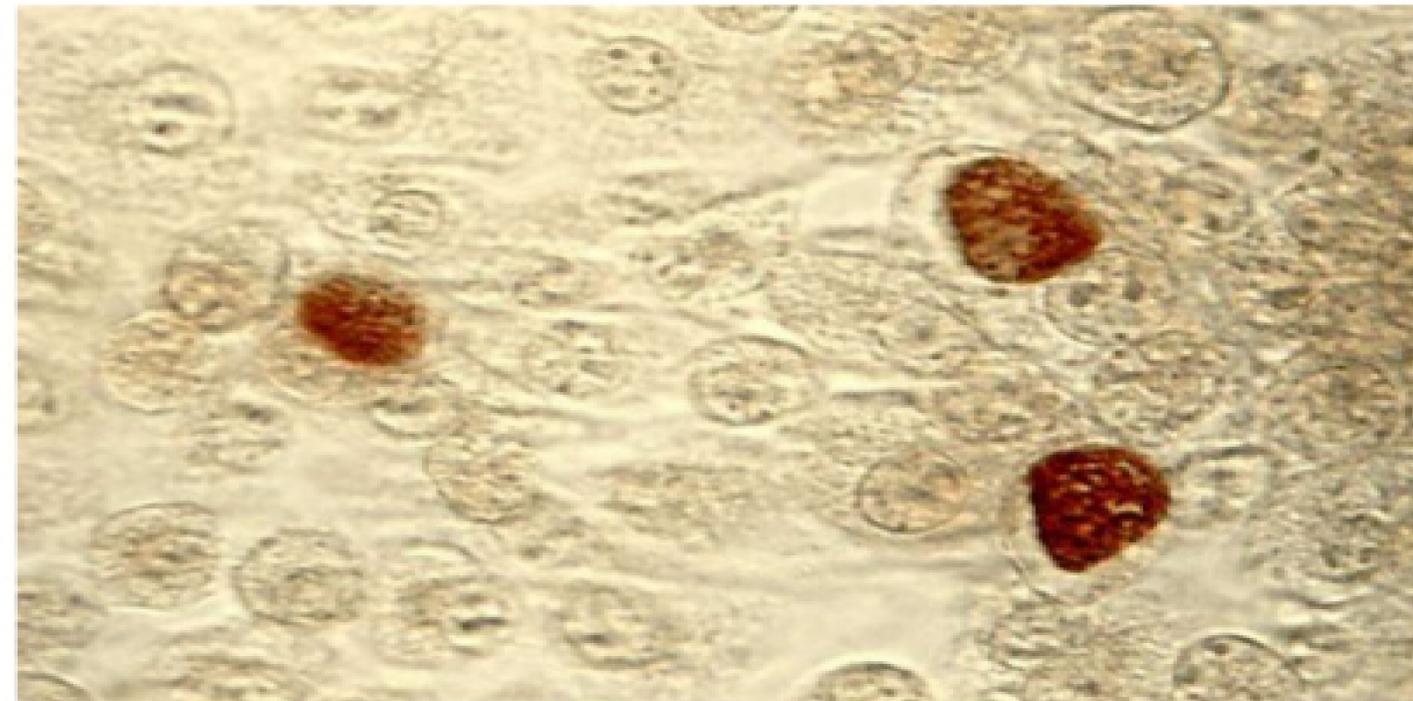


Fig 3. Direct fluorescent antibody – C. trachomatis using Chlamydia monoclonal antibody conjugate ($\times 1000$). Red spots representing EBs. The arrow points to an inclusion body.

Diagnosis of genital system infections

Q21: identify this film.

Isolation of chlamydia is possible by **yolk-sac** inoculation method and tissue culture in **McCoy cells** (synovial carcinoma cell line)



Chlamydia trachomatis in McCoy cells brown colored

Diagnosis of genital system infections

Q22: identify this test.

- Frei test .

Q23: State causative organism.

- C.trachomatis.

Q24: State immunologic basis for this test.

- Delayed hypersensitivity reaction.





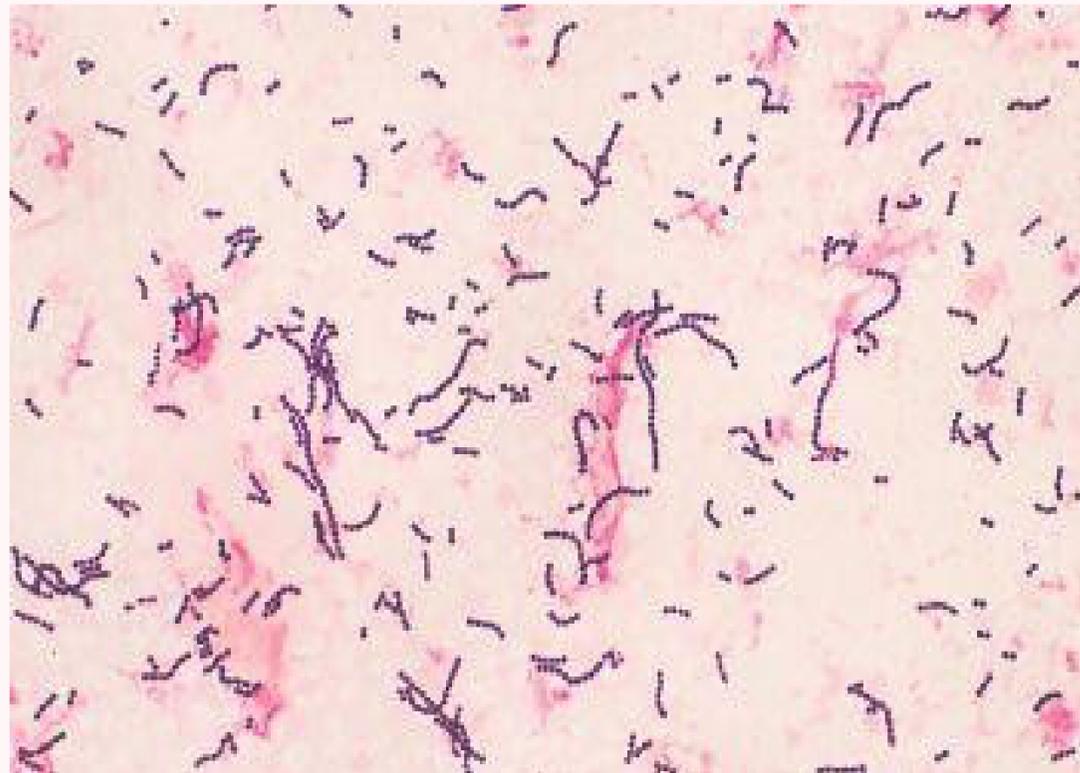
Diagnosis of
puerperal
sepsis

Diagnosis of puerperal sepsis

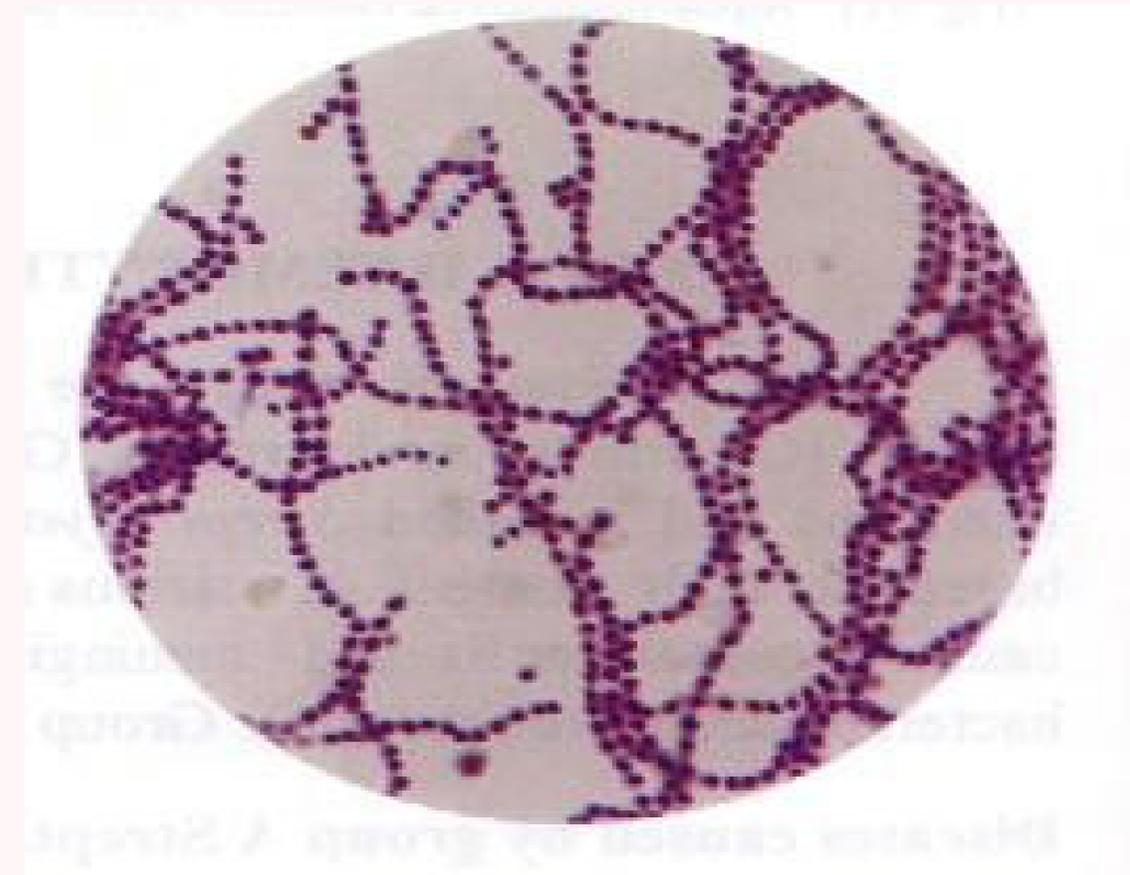
Q1: Identify this stained film.

Q2: Describe morphology of this organism.

- Gram positive cocci arranged in long chains, Non spore forming, non motile and capsule of hyaluronic acid.



**Streptococcus
pyogenes by
gram stain in pus**

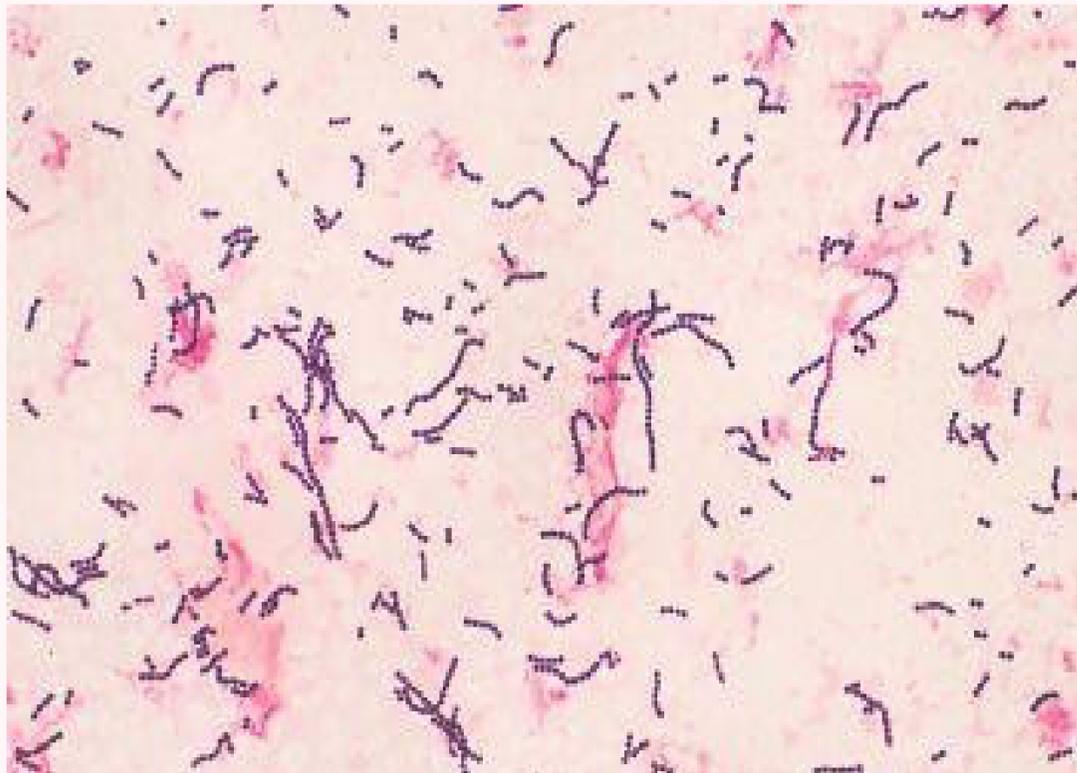


**Streptococcus pyogenes
by gram stain in culture**

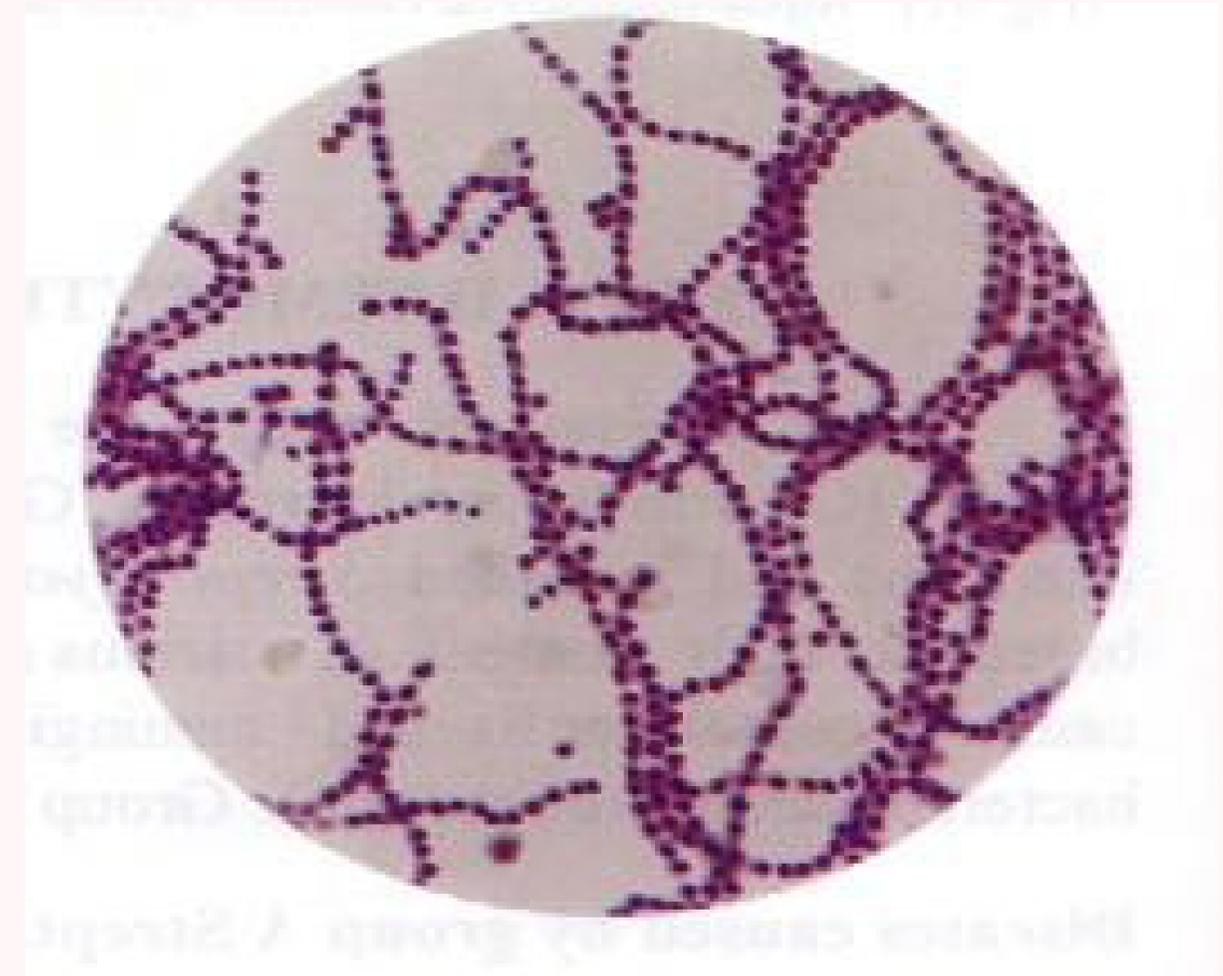
Diagnosis of puerperal sepsis

Q1: Describe cultural characters of the organism isolated in this stained film.

Q2: Describe culture media of the organism isolated in this stained film.



Streptococcus pyogenes by gram stain in pus



Streptococcus pyogenes by gram stain in culture

Diagnosis of puerperal sepsis

Q1: Identify colonial growth on this plate.

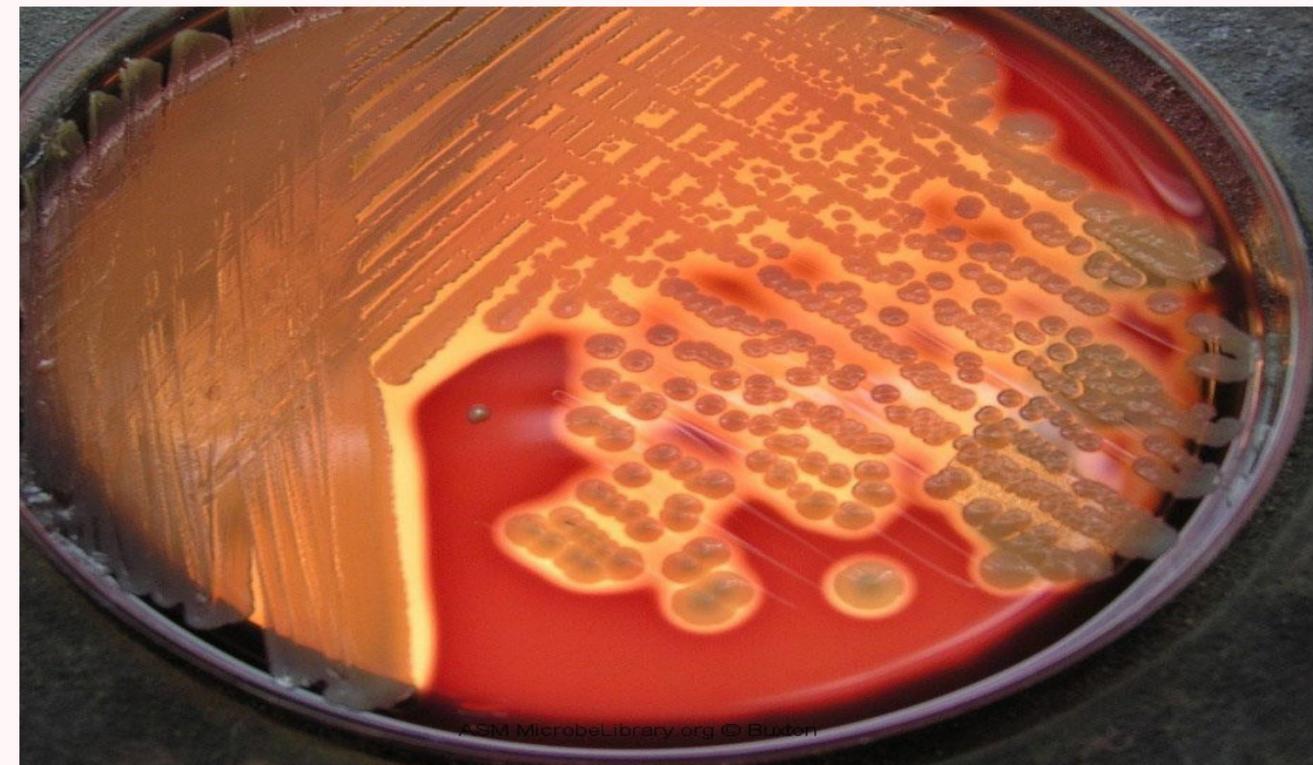
- Beta hemolysis on blood agar plate.

Q2: State 2 organisms causing this reaction on blood agar plate.



***Streptococcus pyogenes* on Blood agar**

***Staphylococcus aureus* on Blood agar**



Diagnosis of puerperal sepsis

Q1: identify this test.

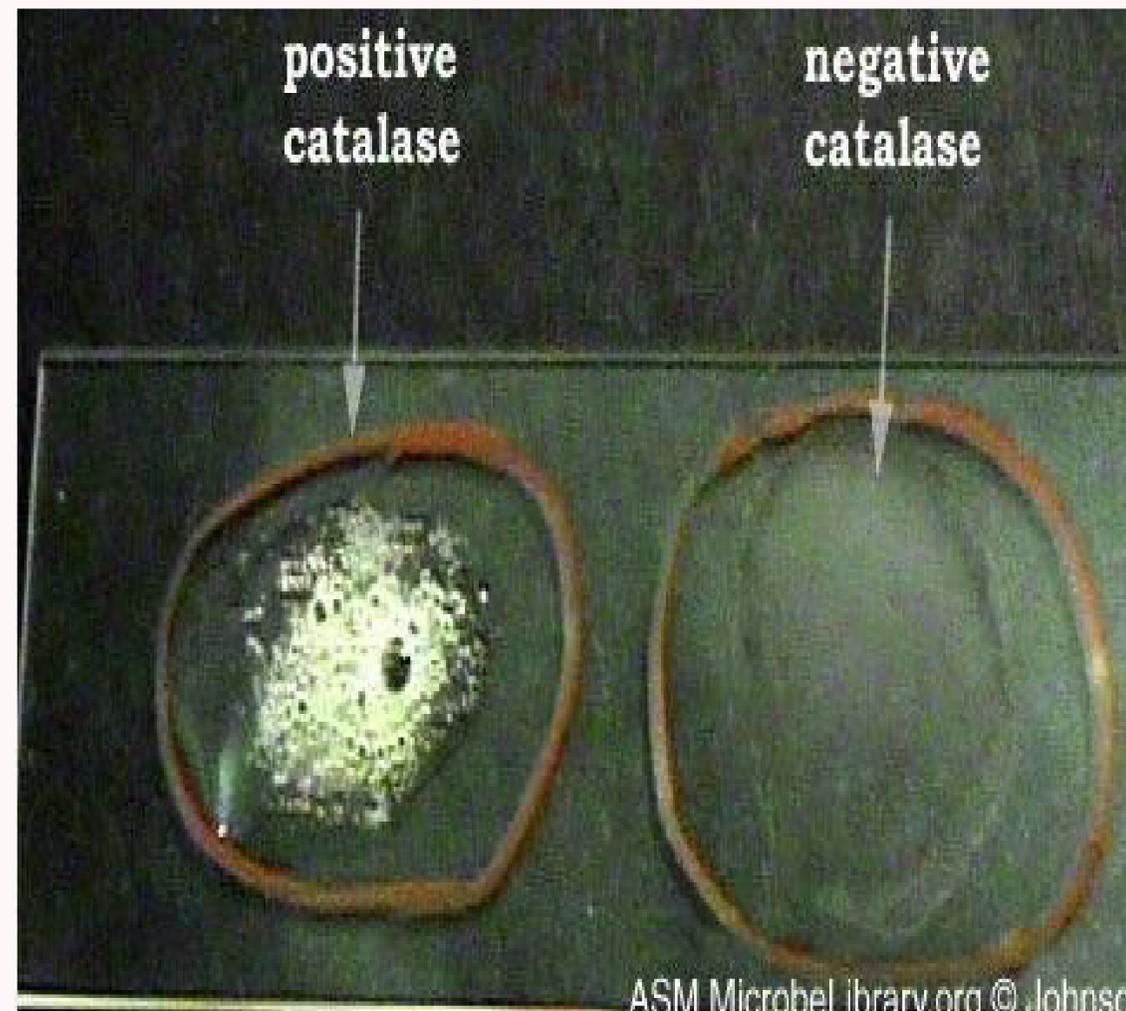
- Catalase test.

Q2: State principle of this test.

- Some organisms produce catalase enzyme which breakdown the hydrogen peroxide to oxygen and water.

Q3: List use of this test.

- Differentiate bacteria that produce catalase enzyme, Staphylococci, from non catalase producing bacteria such as Streptococci.



Diagnosis of puerperal sepsis

Q1: Name this test.

- Bacitracin sensitivity test.

Q2: Illustrate use of this test.

- A zone of inhibition of growth around the disc. differentiate *streptococcus pyogenes* from other beta hemolytic streptococci which are bacitracin resistant.

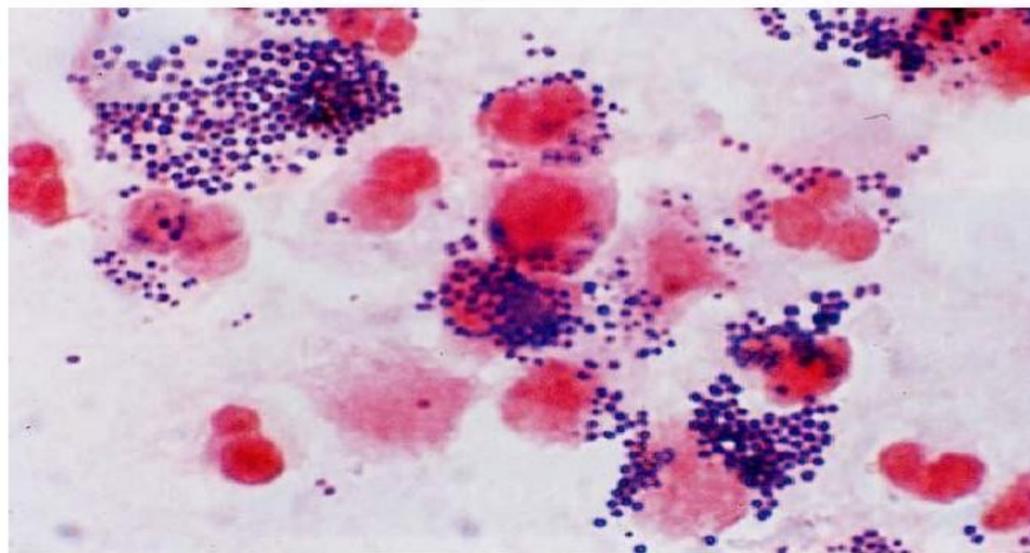


Diagnosis of puerperal sepsis

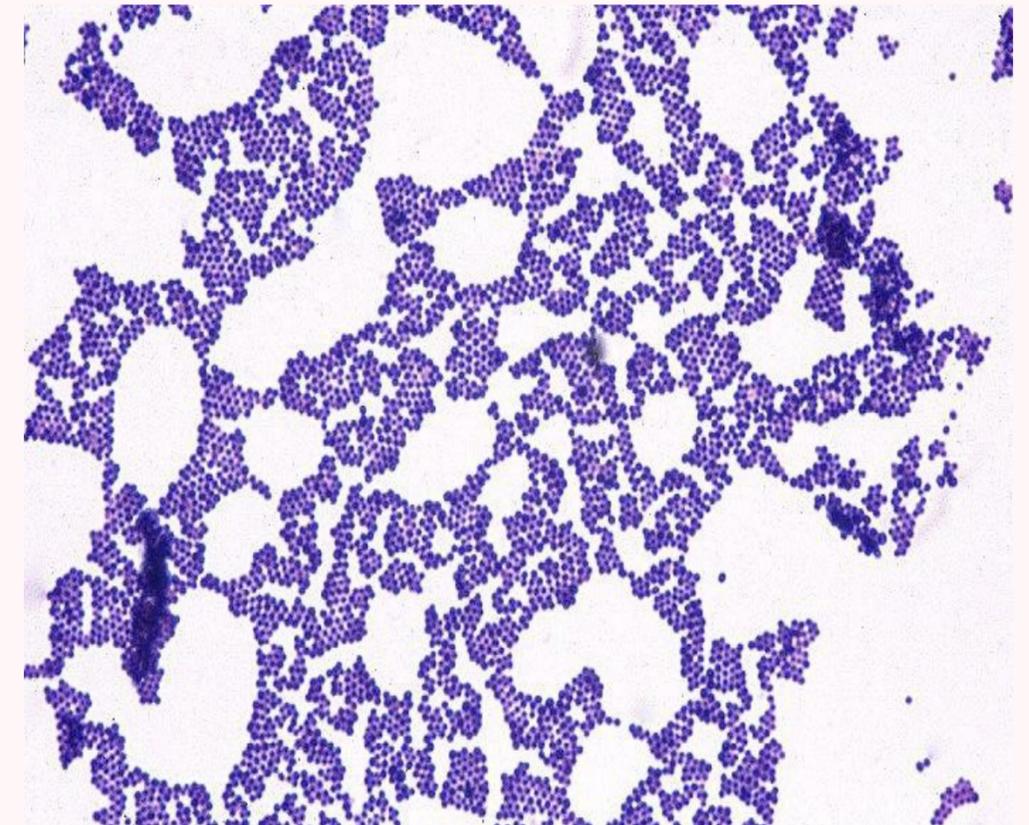
Q1: Identify this stained film.

Q2: Describe morphology of this organism.

- Gram positive cocci arranged in clusters, Non spore forming, non motile.



Staphylococcus aureus by gram stain in pus

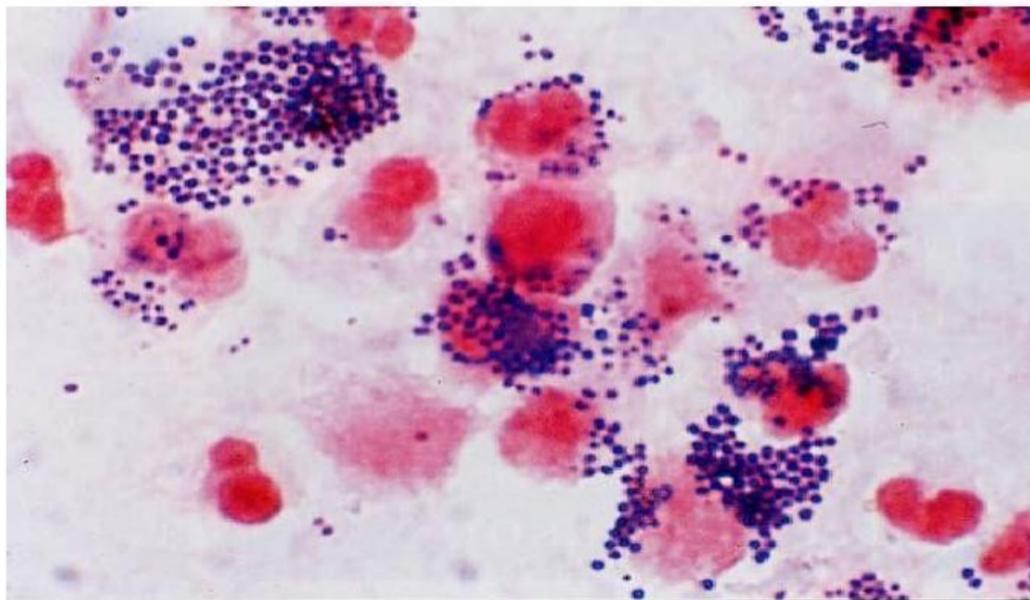


Staphylococcus aureus by gram stain in culture

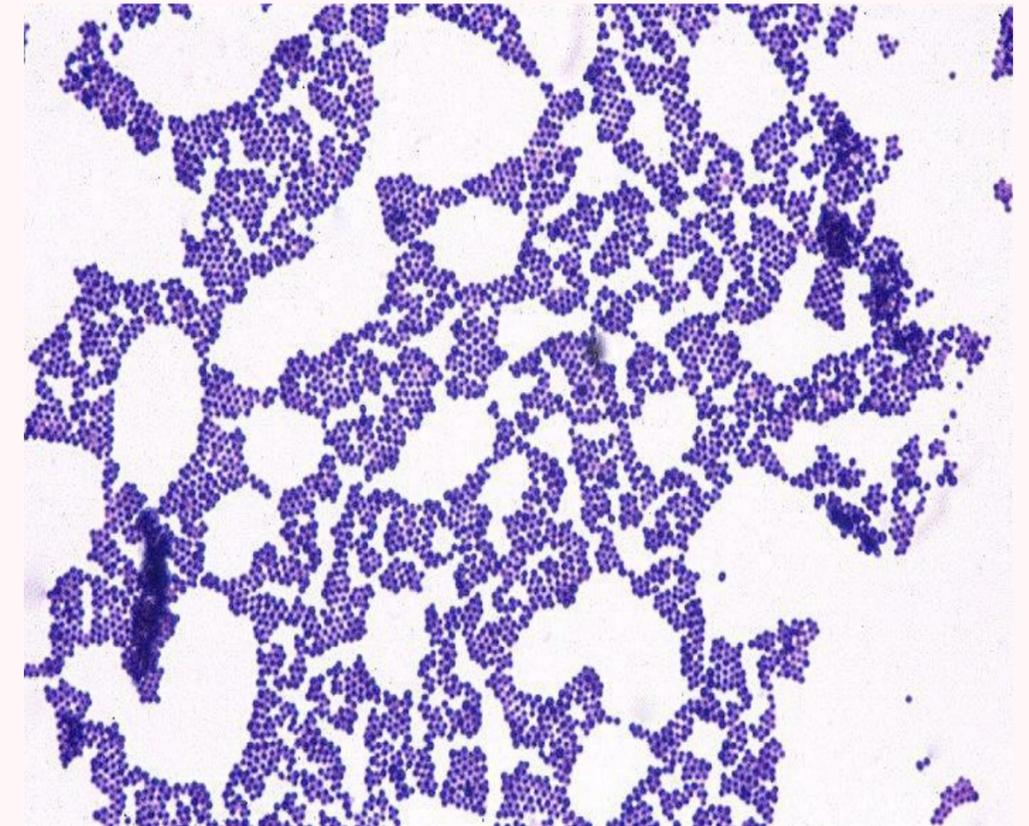
Diagnosis of puerperal sepsis

Q1: Describe cultural characters of the organism isolated in this stained film.

Q2: Describe culture media of the organism isolated in this stained film.



Staphylococcus aureus by gram stain in pus



Staphylococcus aureus by gram stain in culture

Diagnosis of puerperal sepsis

Q1: Identify colonial growth on this media.

- Golden yellow endopigment of *Staphylococcus aureus* on nutrient agar plate.

Q2: State type of this media.

- Ordinary media.

Q3: Name selective media for isolation of colonial growth on this plate.

- Mannitol Salt agar.



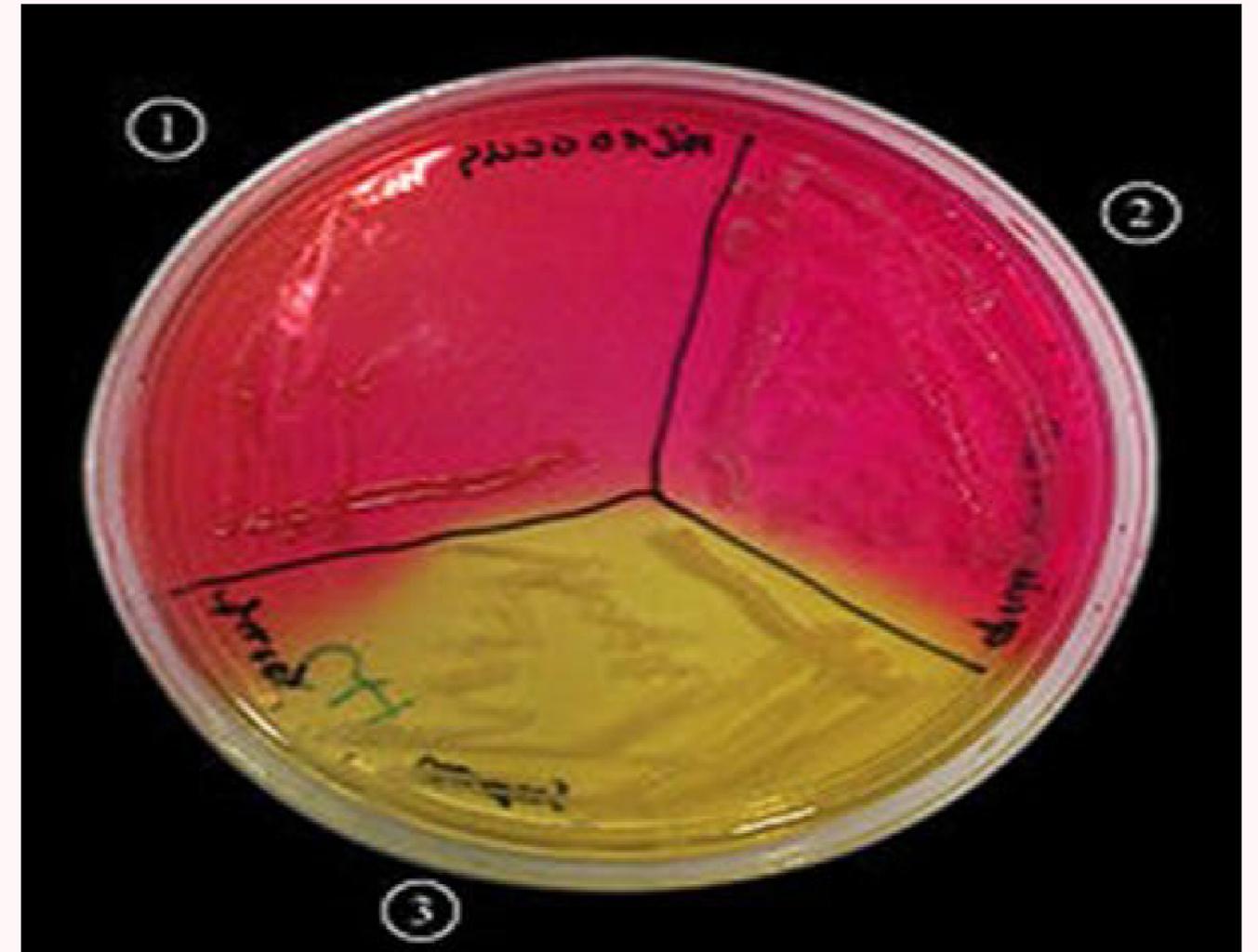
Diagnosis of puerperal sepsis

Q1: Identify colonial growth on this media.

- *Staphylococcus aureus* on Mannitol Salt agar plate.

Q2: State type of this media.

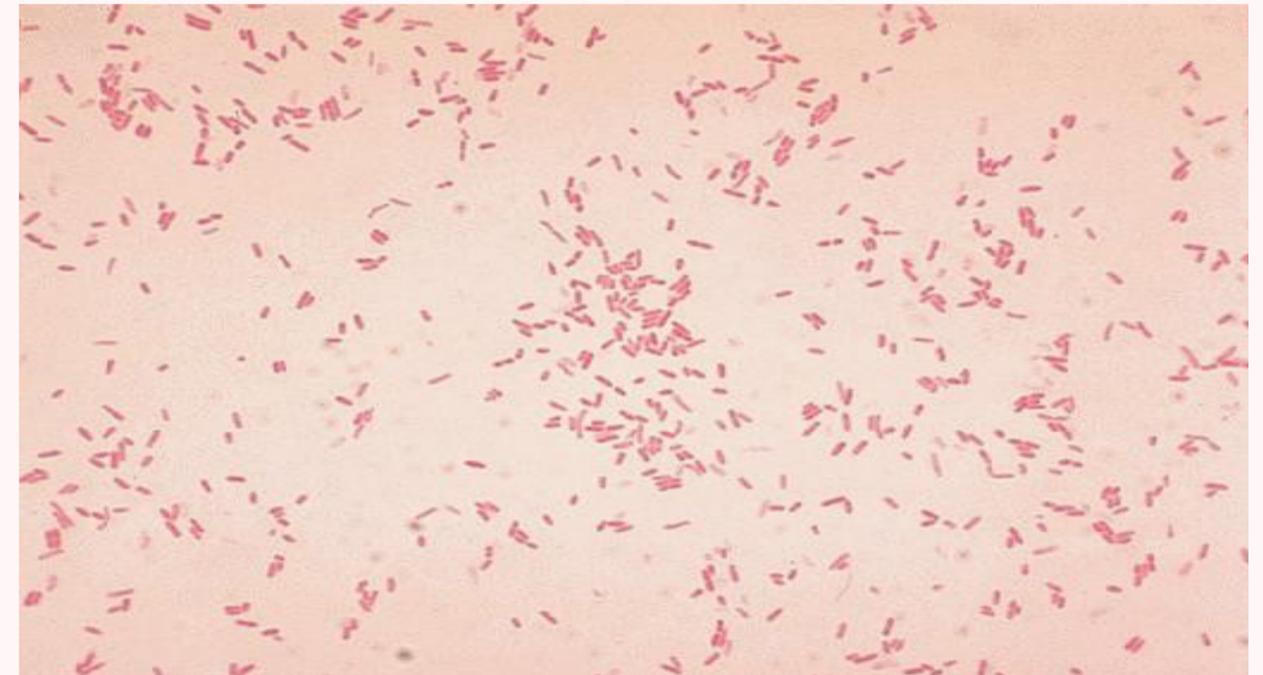
- Selective media.



Diagnosis of puerperal sepsis

Q1: Identify this stained film.

- Gram negative bacilli in culture.



Q2: State type of this media

- Indicator media.

Q4: Describe colonial growth on this media.

- LF colonies on MacConkey agar plate



Diagnosis of puerperal sepsis

Q1: identify organism causing this reaction.



Biochemical reactions of Ecoli

Diagnosis of puerperal sepsis

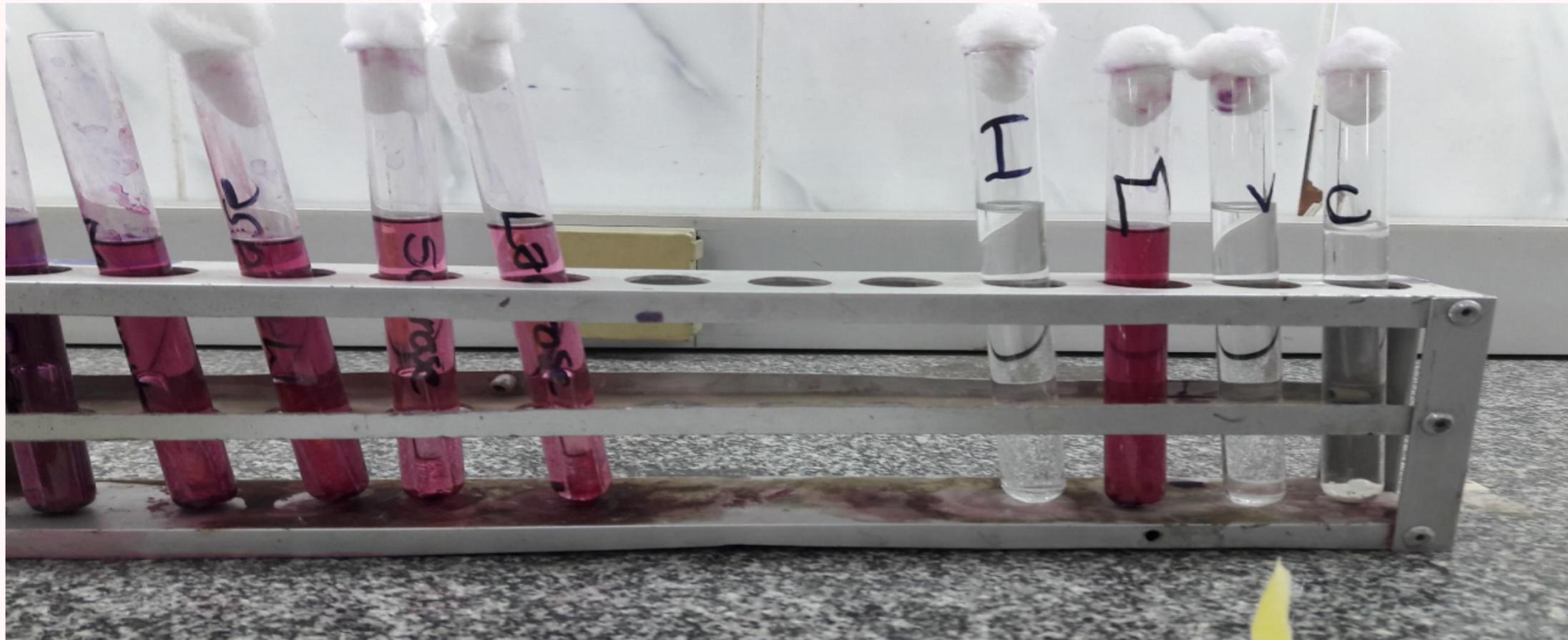
Q1: identify organism causing this reaction.



Biochemical reactions of Klebsiella

Diagnosis of puerperal sepsis

Q1: identify organism causing this reaction.

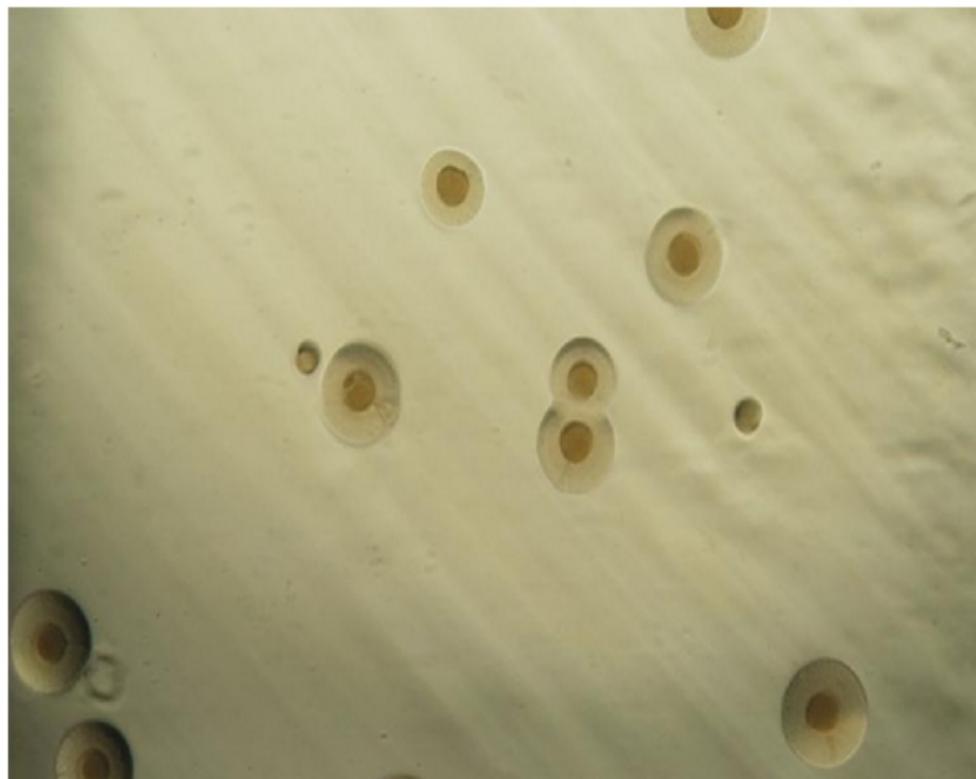


Biochemical reactions of Citrobacter

Diagnosis of puerperal sepsis

Q1: identify this colonial growth.

Q2: State causative organism.



Diagnosis of puerperal sepsis

Q1: identify this media and state its use.



1) Deep agar



2) Media containing reducing compounds



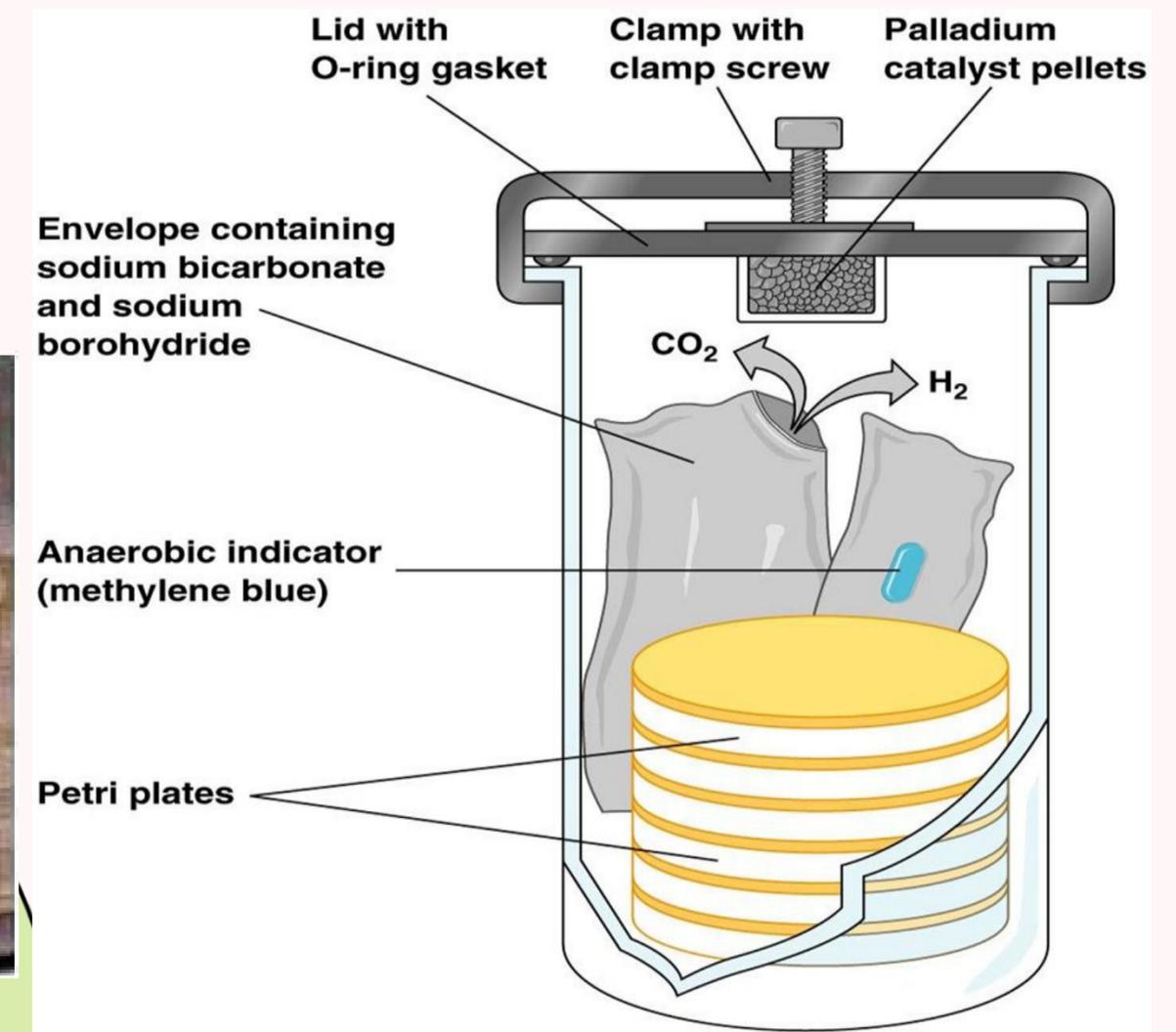
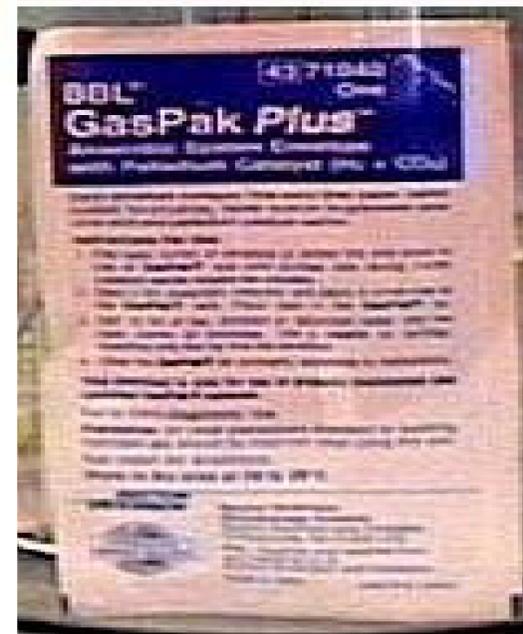
3) Absorption of O₂ by Na-pyrogallate

(Buchner's tube or McLeod's plate)

Diagnosis of puerperal sepsis

Q1: identify this instrument and state its use.

- Replacement of Oxygen with hydrogen (Gas-bag jar), for isolation of anaerobic bacteria.





Does Anyone
Have A Question?

Thank
You

