G⊖ Bacilli ⊕ → Hemophilus

m/c patho sps is H. influenza 'B'.

↳ m/c in children

C/F :

- epiglottis.
- meningitis
- pneumonia

Δ^sis :

Culture

- Selective media → Fildes Digest Agar

- SATELLITISM : → Refer Next pg

  * fastidious Organism
    ↳ only grow when Certain nutrients are present (Here factor V & factor X)

Why Hemophilus influenza can grow on chocolate Agar but not on Blood Agar?

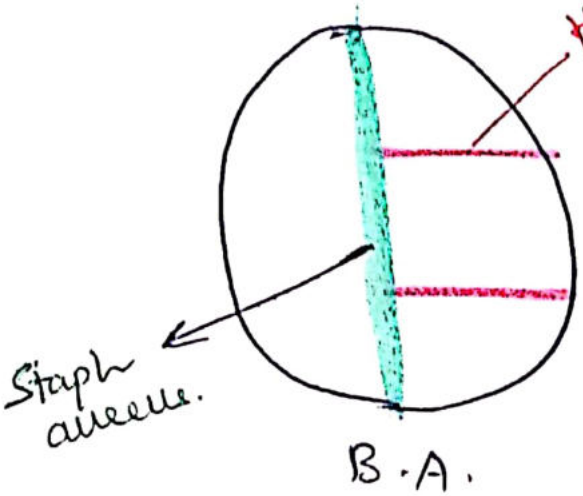
* Blood Agar
  - Factor V ⇒ intracellular (inside RBC) ⇓ So not available
  - Factor X ⇓ extracellular

* Chocolate Agar
  - Factor V
  - Factor X

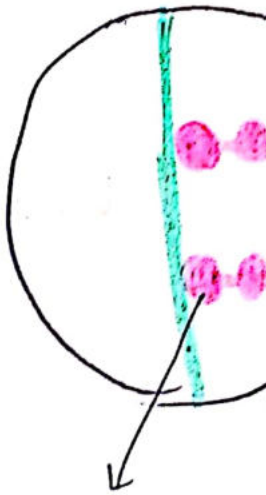
  → extracellular & available

Satellitism:

Note
Blood Agar → Hemolytic Choc
A



after some time
S. aures releases
Hemolysin which
causes hemolysis



more grow
H. influenzae
Staph aureus
to availability
as a result o
& ↓ growth
Sta

"SATELLITISM" ⇐

BORDETELLA.

m/c pathg. sps → B. pertussis.

C/F : Whooping Cough

Virulence Factor ⇒ pertussis Toxin

↓

↑ cAMP (III lar to Cholera).

Δ^{sis} :

Culture

Selective media

Bordet - Gengue Media

↓ produces

- Bissected Pearl Colonies
- ± Aluminium paint Appearance.

Culture Microscopy

G/s →  → Thumb print appearance

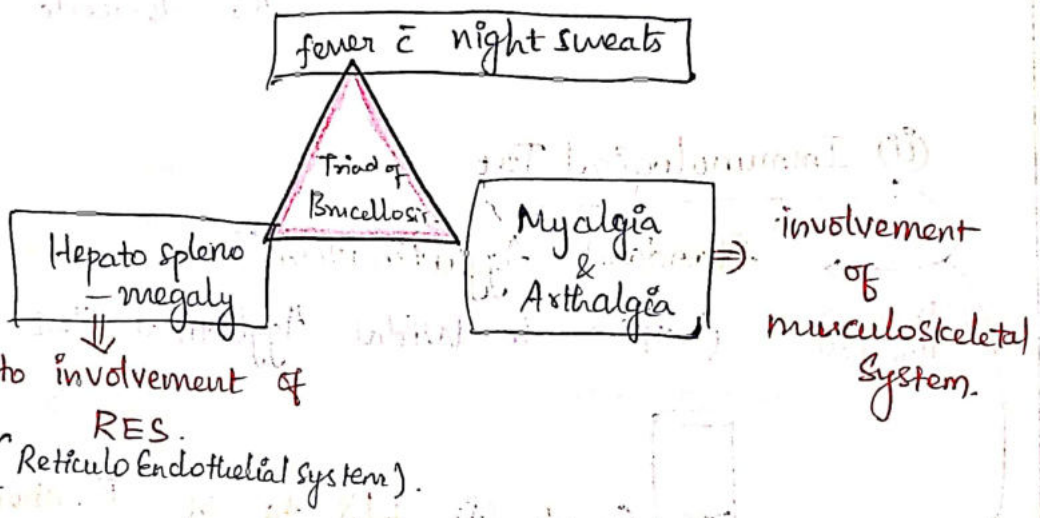
Gram ⊖ → BRUCELLA

m/c patho. sps B. melitensis

C/F

- ✓ Brucellosis (or)
- ✓ Malta fever (or)
- ✓ Undulent fever

} Δ^{ad} (Triad).



Note: Lepto Spirosis **vs** Brucellosis.

all symptoms are ||^{lar} to Brucellosis but No myalgia & Arthalgia
ie) No musculoskeletal involvement

Δ of Brucellosis.

Both are Zoonotic Ds.

Zoonosis

Cattle → Humans — Brucellosis

(i) Direct contact with inf. Animals.

(ii) Droplet inhalation

(iii) Ingestion → Rawmilk & Uncooked meat.

→ Vegetables & Water contaminated c̄ excreta of infected Animals.

(i) Culture

Selective media Trypticase Soy Agar.

↓

provides High protein necessary for Brucella.

(ii) Immunological Test

"Standard Agglutination Test."

(In Humans) (similar to Widal Agglutination Test of Typhoid)

Sample ⊕ LPS Ag of B. abortus. (Not melitensis).

↓

Why? bcoz of Cross-reactivity b/n both

In Animals:

(i) Milk Ring Test

(ii) Rose Bengal card Test