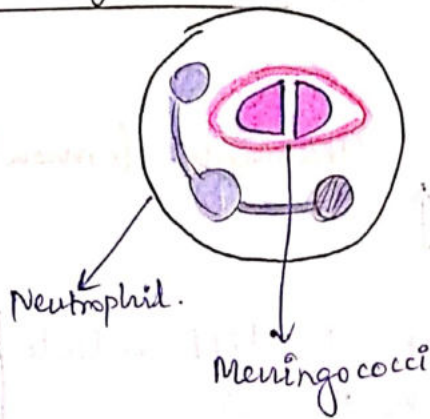


* aka. Neisseria meningitidis
(genus) (sp)

* Both Meningococci & Gonococci belong to the same genus.

Arrangement :



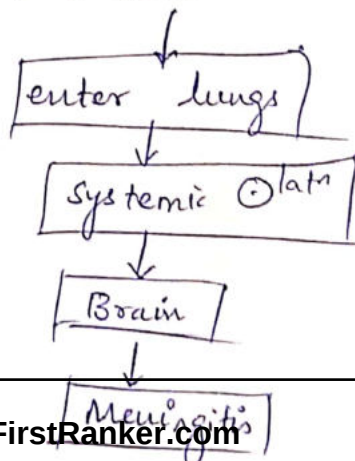
GNC → pink.
→ pairs.
→ lens shaped.
→ Capsulated
→ # INTRACELLULAR
(within pus cells).

VIRULENCE FACTORS:

i) Capsule : Antiphagocytic.

ii) IgA, proteases : Breakdown of secretory IgA.

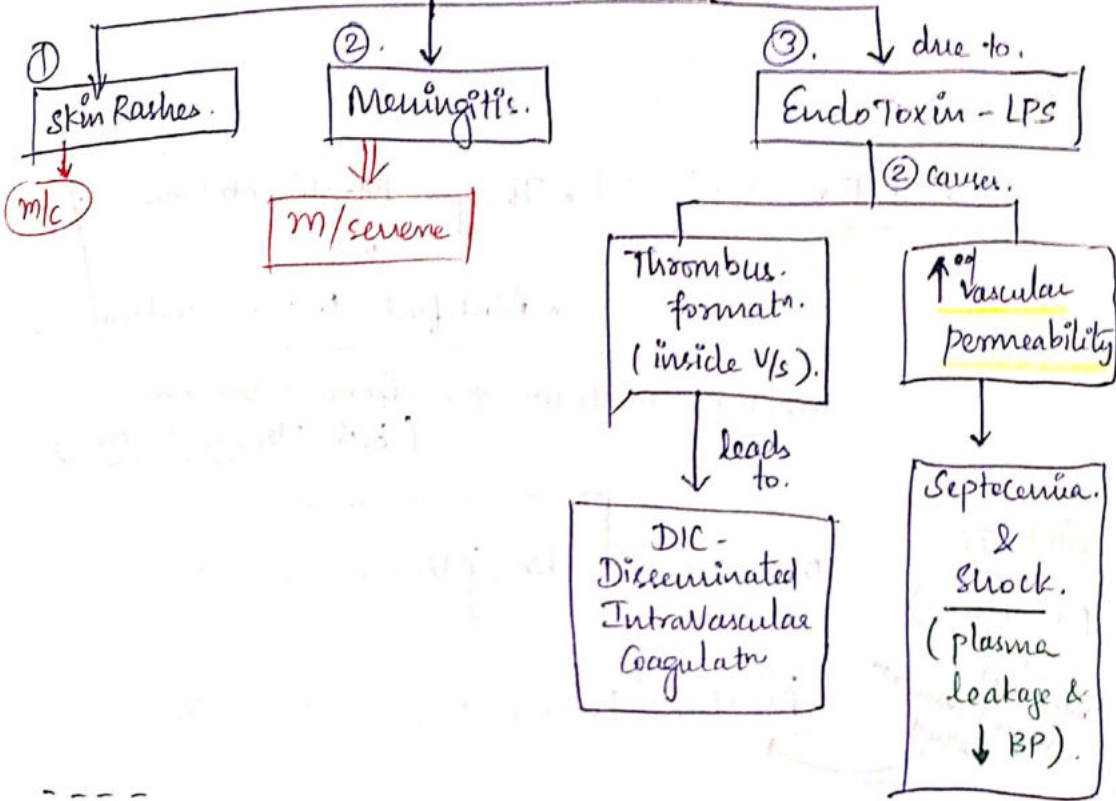
IgA secreted by epithelium of
GI, RS, Genito Urin. Tr.



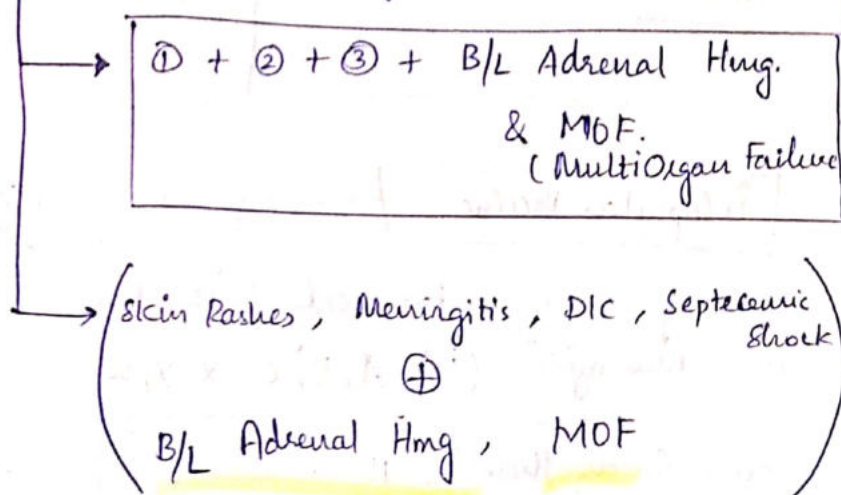
Systemic Circulation

Endotoxin (LPS - Lipo Poly saccharide) $\xrightarrow{\text{cause}}$ Endothelial Injury.

Clinical Manifestation / Diseases caused by Meningococci



④ Water House Friedreichsen Syndrome :



B/L - Bilateral

V/s - Vessels.

MOF - Multi Organ Failure

i) Microscopy:



- * GNC. - pairs
- lens
- Capsulated
- I/c

ii) Culture:

Selective media:

- Thayer Martin Medium
- or
- Modified New York medium

Selective medium for Genus: *Neisseria*.
(both Meningo & Gono-)

(iii) SD

(Biochem)

↓
m/c used is
sugar fermentation
method.

Differentiating b/n Meningo & Gono

↓
Maltose Fermentor. → Meningo.

Prevention:

VACCINES FOR MENINGOCOCCUS.

i) Capsular Vaccine.

→ Quadrivalent
(why?)

* many serotypes but only 6 serotypes
for Meningitis. (ie) A, B, C, X, Y, W

* Even Among these 6, 'B' is assoc. c
severe side effects & 'X' is
least to cause meningitis.

That's why capsular vaccine is.

QUADRIVALENT → (A, C, Y, W)

ii) Conjugate Vaccine

↓
Highly Immunogenic

↓
Can be given to
Children even
< 2 yrs of age.

Note:

- * 'B' serotype (Capsular Vaccine) → Now 'B' variety is produced which has
- * Capsular Vaccines C.I in Ch

why? bcoz its less immun

↓
why? Capsular Ag

↓
Not enough

* *Neisseria gonorrhoeae*.



Neutrophil.

Gonococci.

GNC - pairs.

- kidney shaped.

- Non Capsulated

- # I/C.

Virulence Factors:

i) Pili / Fimbria:

* m/c cause of Urethritis is Gonococci.

↓ why?

it can adhere to Urethra via pili / Fimbriae

↓

prevent getting washed away due to repeated acts of micturition.

ii) Ig A, proteases:

* Breakdown of secretory Ig A.

↓

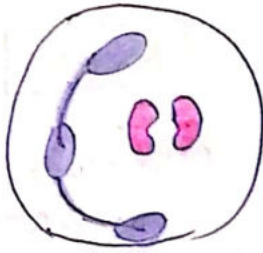
secreted by mucous cells of Genito Urinary Epithelium

iii) Endotoxin:

Lipo Oligo Saccharide → endothelial injury.
(LOS).



i) Microscopy:



- pink
- GNC - pairs.
- kidney shaped
- Non Capsulated
- I/C.

ii) Culture:

Selective Media for *Nisseria*



- * Thayer-Martin Medium (or)
- * Modif. New York medium

Note: Gonococci is v. delicate so when we Transport for eg. a sample from village to city we have to use TRANSPORT MEDIA.



Amies/Stuart Media. (X)

iii) ID

Biochem method → m/c is Sugar Fermentation Method.

MALTOSE fermentation.

(not mannitol) ↓

Non-fermentor

Mnemonic:

M for M.

Meningococci → Maltose fermentor

Gonococci → Maltose Non fermentor.

* No Vaccines have been developed for Gonococci.

