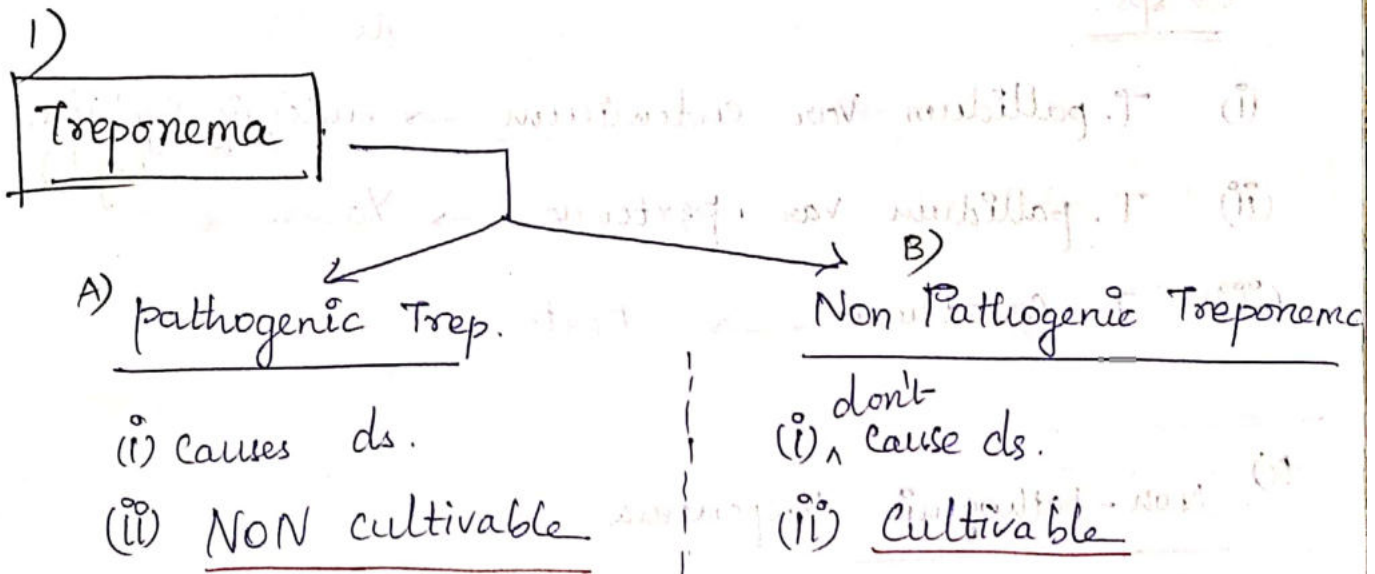
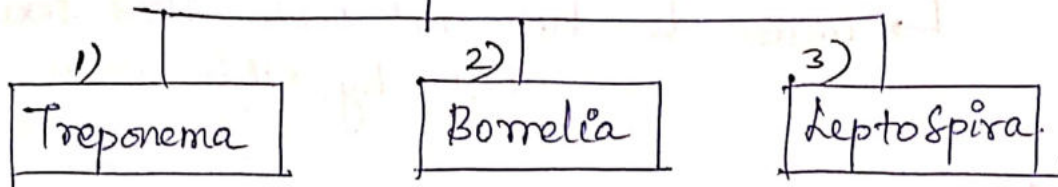
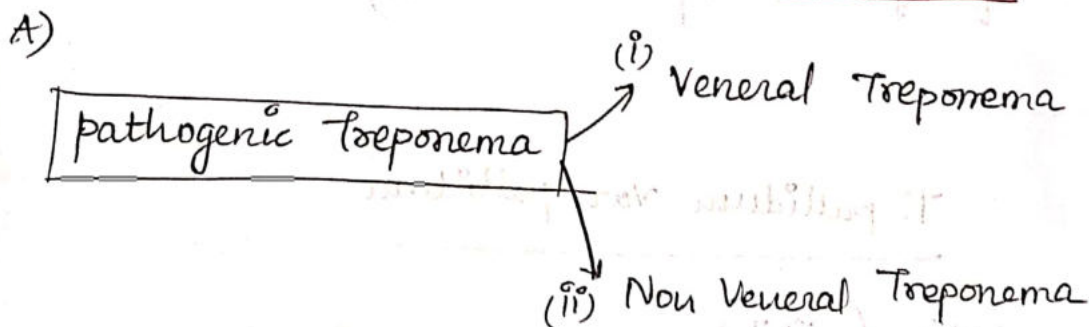




so cultivated by Animal Inoculation (similar to virus)
↓
in Rabbit's Testis



(i) Venereal Treponema: (SEXUAL ROUTE) → ds are transmitted

T. pallidum var pallidum (Nichole's strain)

↓
variety

↓
This type of strain
is maintained in
Rabbit's Testis.

causes ds but not transmitted sexually
but by other means.

③ sps:

ds

- (i) *T. pallidum* var endemicum → endemic syphilis.
(aka Bejel)
- (ii) *T. pallidum* var pertense → Yaws.
- (iii) *T. carateum* → Pinta

B) Non-pathogenic Treponema

Why imp? Bcoz they r Cultivable.

↓
"Smith Noguchi's media"

eg:

- (i) *T. phagedenis*. (Reiter's strain).
- (ii) *T. refringens*. (Noguchi's strain).

T. pallidum var *pallidum*

C/F: Syphilis (STI).

④ stages:

i) 1st stage - 1^o syphilis

- * Hard chancre in genital area
- * Regional Lymphadenopathy
- * If no Rx then progresses to next stage.

(i) 2° syphilis* Maculo papular lesions.

* Generalised lymphadenopathy.

* papules in intertrigenous area (skin fold)
↓
groin
Axilla..
is known as "CONDYLOMA LATA"Note:

Condyloma lata	Condyloma accuminatum
* in 2° syphilis.	* Caused by HPV. (serotype 6 & 11)
* papules in intertrigenous area.	* Anogenital warts.

2° syphilis	no Rx.	Latent syphilis
	maculopapular lesion disappears.	

(iii) Latent syphilis.

* No lesions

* pt. is clinically well but
serologically ⊕ve (Ag & Ab's ⊕ve).

* slowly progress to 3° syphilis.

* pt. develops destructive lesions involving SKIN, m/s, bones.

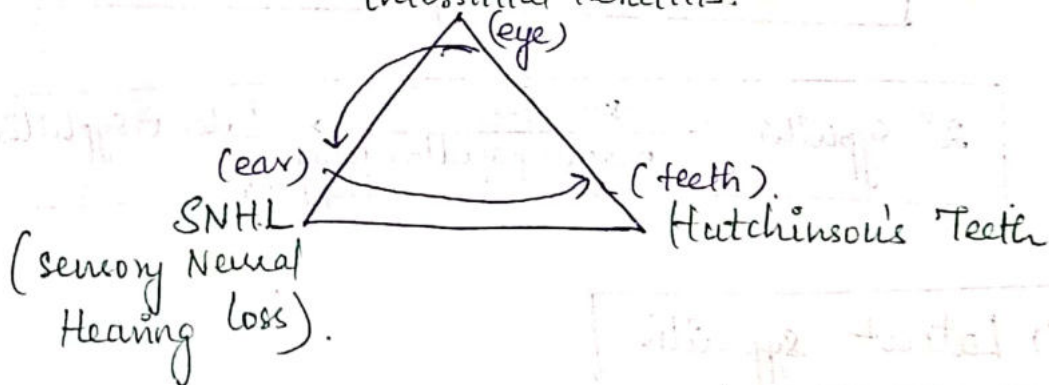
* These lesions are called GUMMA

* Also, CNS affected (Neurosyphilis).
CVS "

Note: Congenital Syphilis.

* If a pregnant woman has syphilis then Vertical transmission occurs from mother to fetus

* Consists of Δ^{ad} when fetus is born
interstitial keratitis.



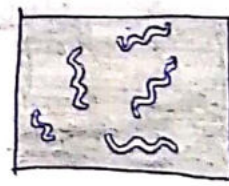
Δ^{is} : $\begin{cases} \text{microscopy} \\ \text{culture} \\ \text{Immunolog. Test} \end{cases}$

(i) Microscopy: (Common for All ③ Spirochetes).

Dark ground microscopy

* No need for stain

* so org. are live & motile



cork - screw (or) Flexion-extension (or) lashing motility
(||| low to H. pylori)

* $\therefore$ spirochetes are thin, silver impregnation is used.

* Type of silver imp. stain is. Fontana stain

yellow background
Brown organisms



(ii) Culture $\rightarrow$ Non cultivable & Animal Inoculⁿ
(Rabbit's Testes).

(iii) Immunology Tests.

a) Non-Treponemal / standard

b) Treponemal / specific

a) Non Treponemal / standard:

* Here Non specific. (Reagin Ab's) Ab's are detected

$\downarrow$
i) secreted against Cardiolipin Ag present in Ox's heart
(Non specific)

ii) secreted against all Trep. sps. That's why Non Specific.

Examples:

older { • Wasserman Test $\rightarrow$ CFT (Complement Fixation Test).
• Kahn's Test $\rightarrow$ Tube flocculatⁿ Test

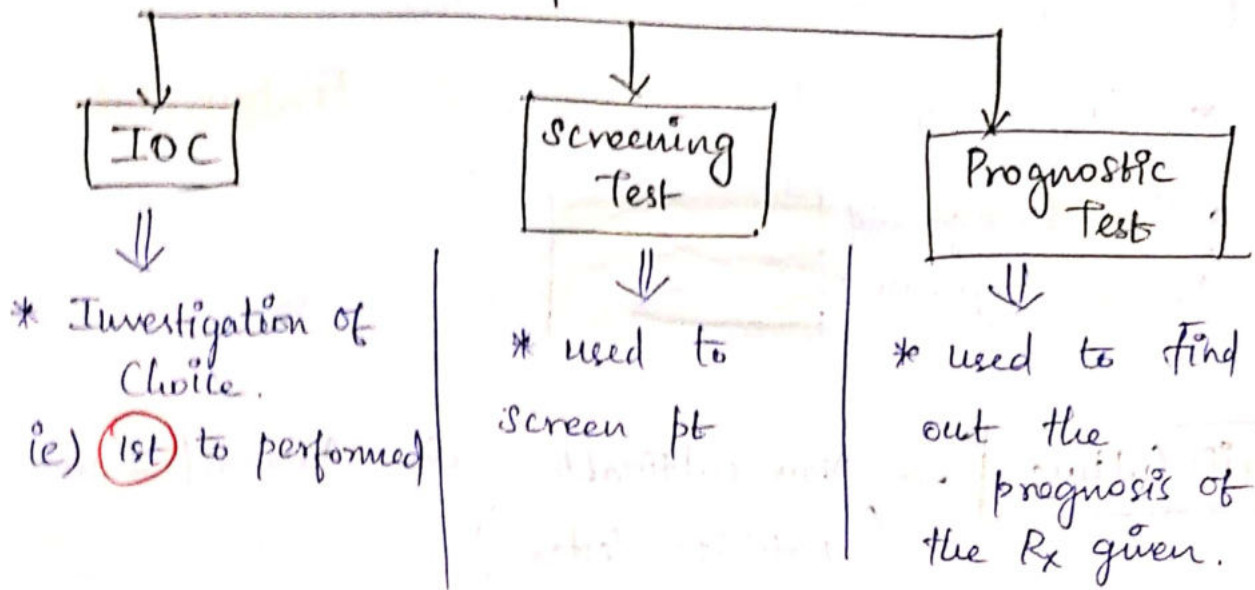
newer { • VDRL Test } $\rightarrow$ preprecipitatⁿ (Not Agglutⁿ)
• RPR Test } $\rightarrow$

Slide Agglutination Test

VDRL - Venereal Disease Research Lab.

RPR - Rapid plasma Reagin

$\rightarrow$ w/c used



b) Treponemal / Specific Tests:

* Specific Ag's are used to detect Specific Ab's.

eg:

i) FTA - ABS. → (Gold standard)

Fluorescent assay in which Ab is detected ⇒ Indirect Imm. Fluoresc. Assay

but not performed 1st. (Non Trep. Test is 1st)

ii) TP(I) → Immobilization test

iii) TP(HA) → Hemagglutination test

iv) TP(PA) → Particulate " "

TP - Trep. pallidum.

Note:

* FTA - ABS. → (Fluorescence Treponemal Ab. Absorption Test)

Type of Indirect IFA (Imm. Fluoro. Assay).

Significance: of Trep/specific

* Confirmatory Test

* FTA-ABS → Gold
