

Parasitology

Lab-4 (Trypanosoma)

1- T. gambiense

1- located in Africa

2- morphology of the trypomastigoid :

1-pointed anteriorly

2- centered elongated nucleus

3- kinetoplast (posterior)

4- flagella (anterior)

5- undulating membrane

6- length 15-30 microns

7- elongated and fusiform shape

3- life cycle :: from the biological vector (glossina **tse tse fly** {reveriena type}) to human

4- acute form (trypomasigoid) present in blood, lymph, bone marrow

5- chronic form present in C.S.F because it affect the C.N.S

6- it is (**anterior station**) because it multiple in the salivary gland of the insect

7- morphology of the epimastigoid : is the same as morphology of the trypomastigoid except :: kinetoplast become anterior to the nucleus

8- trypomastigoid located in human but epimastigoid located in insect and it found intracellular in human (we can see the epimastigoid in the insect and culture)

9- the culture is 3N media

10- infective stage :: metacyclic trypomastigoid { epimastigoid } that present in the saliva of insect and transmit to the human by bite

11- disease : it cause Gambian trypanosomiasis or mid African sleeping sickness

12- Treatment : suramine (I.V)

2- T. cruzi

- 1- present in America
- 2- morphology: is the same as morphology of the T. gambiense except :: kinetoplast become very dominant (واضح جدا في الخلف) and sometimes it become u or c shape
- 3- vector : reduvid bug (Triatoma)
- 4- it is (**posterior station**) because it multiple in the hind gut of the bug and transmitted to human by the feces of the bug
- 5- diagnosis :: blood examination
- 6- Route of infection : reduvid bug bite – blood transmission
- 7- infective stage : metacyclic trypomastigoid { epimastigoid }
- 7- diagnostic stage : Trypomastigoid in the blood – amastigoid in the tissues
- 8- habitat : Acute : blood
Chronic : heart and GIT
- 9- disease : it cause American trypanosomiasis or chagas disease
- 10 treatment : Nitrofurane

ملحظات هامة :::::

- 1- endemic : المرض موجود في منطقة معينة طوال السنة
- 2- epidemic : يأتي المرض على شكل موجة الى منطقة معينة ثم يذهب
- 3- pandemic : المرض ينتشر في كل أنحاء العالم
- 4- sleeping sickness is endemic in Africa and America
- 5- thin blood film is used in this lab :::: the RBCs are clear and the parasite located between them and there are few WBCs