

# GET THE POINT...

## Lecture (1) : Plasmodium & Babesia



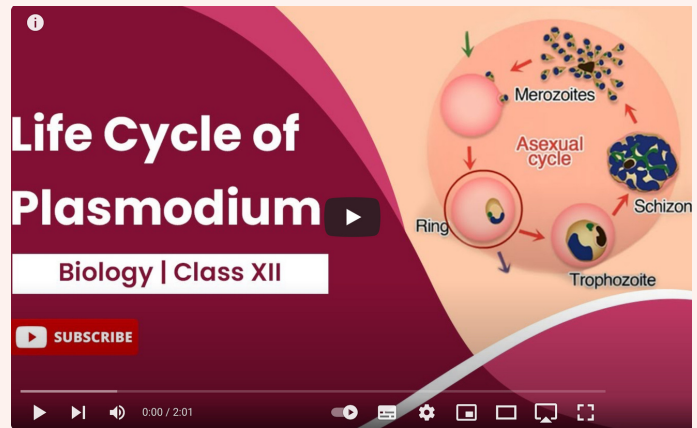
### Plasmodium

At the beginning we have to know that it has no special organs for locomotion ( move by gliding).

#### ● Some information about the life cycle:



<https://youtu.be/NeTj-3NR02w?si=NhvCo5vVHTeZ5NET>



- It has two stages : inside the mosquito >>sexual (**D.H**) and inside human>> asexual (**I.H**).  
>>in human it has also **two stages** first in liver then in blood.
- **I.S**: to human is **sporozoites** by bite of female of mosquito and the **I.S**: to mosquito(female of Anopheles) is **gametocytes**  
بس بدنا نعرف انه الناموسة لما تمص الدم بتوخذ معها كل الاشكال الموجودة في الدم بس كلهم بتكسروا داخلها وبكمل معا فقط gametocyte او كيبويه!؟
- In each of blood transfusion, syringes and tranplacental the (**I.s**) is all erythrocytic stages.
- **D.S** : All erythrocytic stage **except** in P. falciparum only rings and gametocytes are seen in peripheral blood **due to adhesion phenomena**.
- **R.H**: No **except** malariae >>Chimpanzee



## Plasmodia ( malaria ) types :

**Vivax and ovale** >> causes benign tertian malaria **يعني الاعراض بترجع اليوم الثالث**  
 >> they have secondary tissue phase ( hypozoites in liver )  
 >> infect young RBCs

**malariae** >> benign quartan malaria **متي بترجع الاعراض؟**

>> infect old RBCs  
 >> as specific symptoms ( nephrotic syndrome)

**falciparum** >> malignant malaria tertian or sub tertian

>> infect all RBCs  
 >> Black water fever (tea color) due to inadequate **quinine**  
 >> pernicious syndrome Due to adhesion phenomena  
 cause vascular obstruction in brain and kidney ..

## Mode of transmission:

- 1) bite of anological
- 2) blood transfusion
- 3) contaminated syringes
- 4) congenital transmission
- 5) organ transplant



Points (2,3,4) **NO** liver phase  
 point (5) > (vivax & ovale) **BOTH**  
 liver and blood phases are present

**دقيقة دقيقة تعال معي هون شو قصة**  
**relapse & recrudescence?**



## Important!!

	<i>Plasmodium vivax</i>	<i>Plasmodium ovale</i>	<i>Plasmodium malariae</i>	<i>Plasmodium falciparum</i>
Trophozoite (ring stage)				
Mature trophozoite				
Schizont				
Gametocyte				

Relapse بصير ( vivax & ovale )

هذا فكرته انه الباراسايت بتروح داخل الكبد سنوات وفجأة  
 بتحب تكشف عن هويتها كيف و ليش ما ندري  
 طيب شو قصة recrudescence!

هذا يا سيدي بصير في كل انواع الملاريا وهو انه بس يتعافى  
 المريض بظل شوية باراسايت مش كافية لتعمل "ريلابس"  
 وبس تنخفض مناعة المريض لأي سبب بتنشط وبعمل أعراض  
 الملاريا

شيخ البيسك ليلة الامتحان على القروب : الأدوية معنا؟؟  
شو بتجاوبه اللجنة : ااه معنا معنا اوكييه ولا مش اوكييه

## Treatment

### 1) primaquine

gametocyte بنعطيه للقضاء على

وبرضو في كل الحالات الي يكون فيها

liver phase (vivax & ovale)

### 2) chloroquine

### 3) fansidar

### 4) mefloquine

5) artemisinin based: pyrimethamine / sulphadoxine + artesunate

for chemoprophylaxis : weekly: mefloquine / daily : doxycycline



## Babesia

Differences between babesia & plasmodium

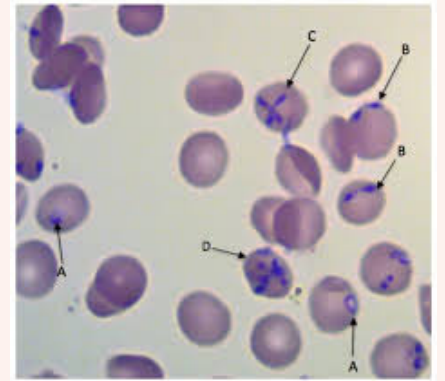
**NO** hepatic stage

-Merozoites arranged in pairs or Maltese cross

-**NO** pigments

-vector is the hard tick

-symptoms same as plasmodium **except** paroxysm



Treatment **معلىش الي علينا علينا** 😊

1) Quinine + clindamycin

2) Exchange blood transfusion in sever cases



1) Regarding babesiosis symptoms one of the following is incorrect:

- a) mild chills and fever
- 2) hemolytic anemia
- c) jaundice
- d) hepatomegaly
- e) malarial like paroxysm is present

2) Malarial pattern disease characterized by renal and CNS involvement and no spontaneous recovery and ultimately fatal is :

- a) p. Falcipartum
- b) p. Vivax
- c) p. Malariae
- d) p. ovale
- e) babesia microti

3) The characteristic 4 ring form trophozoites are present in the:

- a) leishmania tropica
- b) Entamoeba histolytica
- c) plasmodium Malaria
- d) Trypanosoma brucei
- e) babesia microti

4) Malarial paroxysm pattern that appears in day 1 and 4 and 7 etc caused by:

- a) p. Falcipartum
- b) p. Vivax
- c) p. Malariae
- d) p. ovale
- e) babesia microti

1	2	3	4
E	A	C	C

