



HEMATOPOIETIC & LYMPHATIC SYSTEM

-HANAYAT BATCH-

SUBJECT : Micro Mid Summary

LEC NO. : 3

DONE BY : Hanadi MJ 🦋

وَقُلْ رَبِّ زِدْنِي عِلْمًا



HEMATOPOIETIC & LYMPHATIC SYSTEM

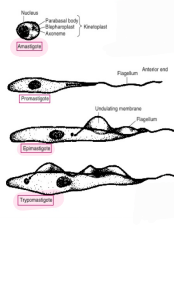
By: Hanaeli MS

Lecture 3

Leishmania

Trypanosomia African

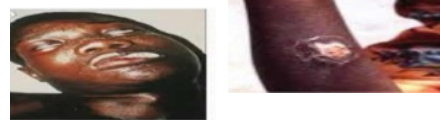
general characteristics



They r 4 groups , but we will focus on *L. donovani* . The most common 2 of the life cycle are **promastigote** & **amastigote** : they target **macrophages**



Vector is **phlebotomine sandfly** and host is **mammal**



الدكتور قال إننا مثل اللي قبل بس مش موجوده عننا و انه ال **tsetse** ال **vector** هون بيكون مختلف و هو ال **sandfly** و بيعمل مرض اسمه **sleeping sickness** اللي ممكن يستمر و بالنهاية يصير عننا وفاة ... بالنسبة لل **parasites** ال **brain & meninges** بتتخرب اول شي ع بحيث الواحد بيضد نايم و تاتي مكانه بتروح ع القلب

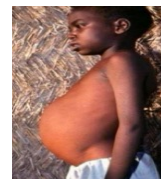
Epidemiology

cutaneous leishmaniasis : in Syria , Saudi Arabia , Iran
mucocutaneous leishmaniasis
systemic leishmaniasis : **Kala azar** in Brazil , India , Sudan ... Endemic in 88 countries , widely distributed (20 million people worldwide)



Pathogenesis

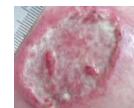
parasites will disseminate in the **bloodstream** and will be taken up by the **macrophages of organs** & normal **tissue** will be replaced by other nonfunctional one.



Disseminated Intravascular Leishmeniasis (Kala azar) is caused by *L. donovani*

Note : in India, the human is the only known reservoir

Manifestations : A **double-quotidian pattern of fever** (two fever spikes in a single day) , Diarrhea and malabsorption , **enlarged lymph nodes and liver** , grayish pigment (**kala azar, black disease**) , **anemia** , thrombocytopenia , Serum immunoglobulin G levels ↑↑



Cutaneous Leishmaniasis are of 3 types

Leishmania tropica: Anthroponotic cutaneous leishmaniasis: Dry lesions with minimal **ulceration**

Leishmania major: Zoonotic cutaneous leishmaniasis: wet lesions with severe reaction

Oriental sore (most common) classical self-limited ulcer

Management

The diagnosis is made by demonstrating the presence of the organism in aspirates taken from the **bone marrow, liver, spleen, or lymph nodes** ... **PCR** can also be done ...

Results of the leishmanin skin test are **negative during active disease** but become **positive** after successful **therapy**. The mortality in untreated cases of kala azar is up to 75 to 90%

Control measures are directed at the *Phlebotomus* vector, with the use of residual insecticides, and at the elimination of mammalian reservoirs by treating human cases

