

LEISHMANIA DONOVANI – Life cycle

(Part -2)



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Leishmania donovani –Lifecycle



Life cycle in man

- Thus during the blood meal the sand fly deposits promastigote form and these promastigotes are phagocytised by macrophages and change into amastigote form.

Leishmania donovani –Lifecycle



- The amastigotes multiply by simple binary fission inside reticuloendothelial system to form large number of amastigotes.
- The host cell is thereby enlarged.
- When the number of parasite reaches 50 to 200 or more, the host cell ruptures.
- The parasites liberated infects new cells .

Leishmania donovani –Lifecycle



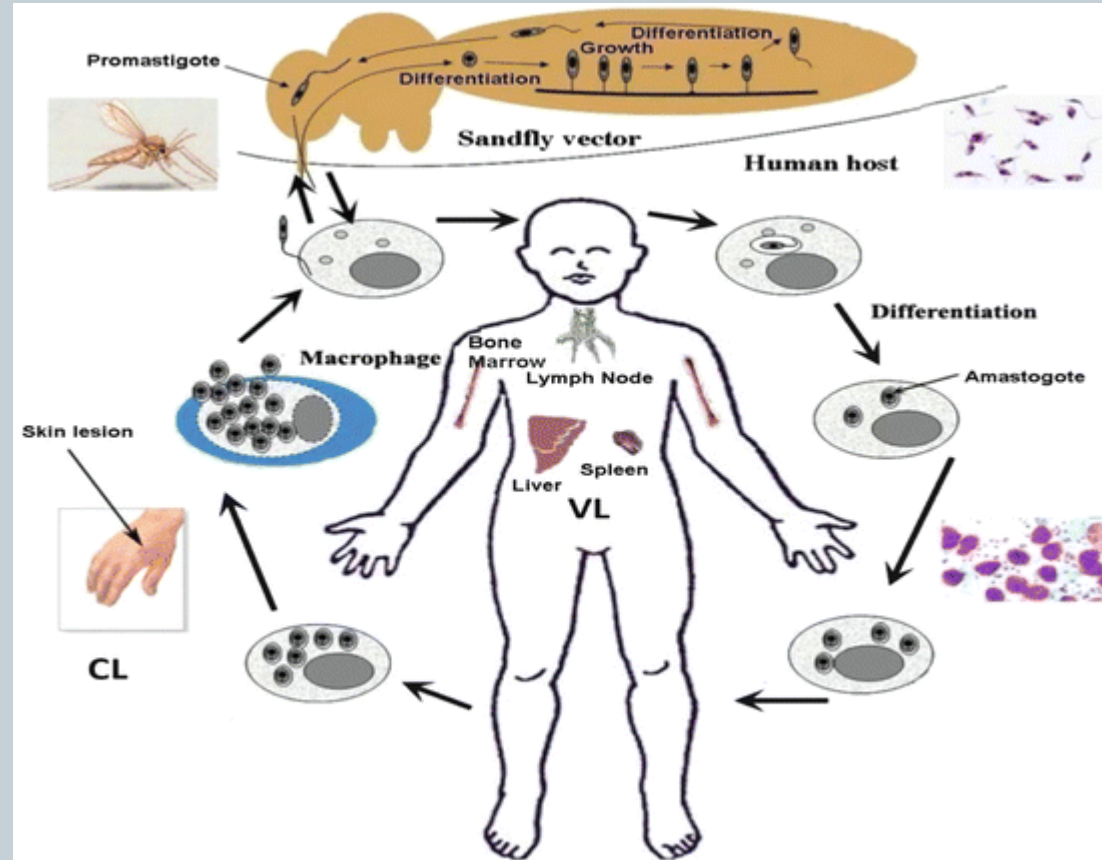
- The parasites liberated infect new cells and the cycle is repeated so that the reticuloendothelial system becomes progressively infected.
- Some of the free amastigotes become phagocytosed by the neutrophils and macrophages in the blood stream.

Leishmania donovani –Lifecycle

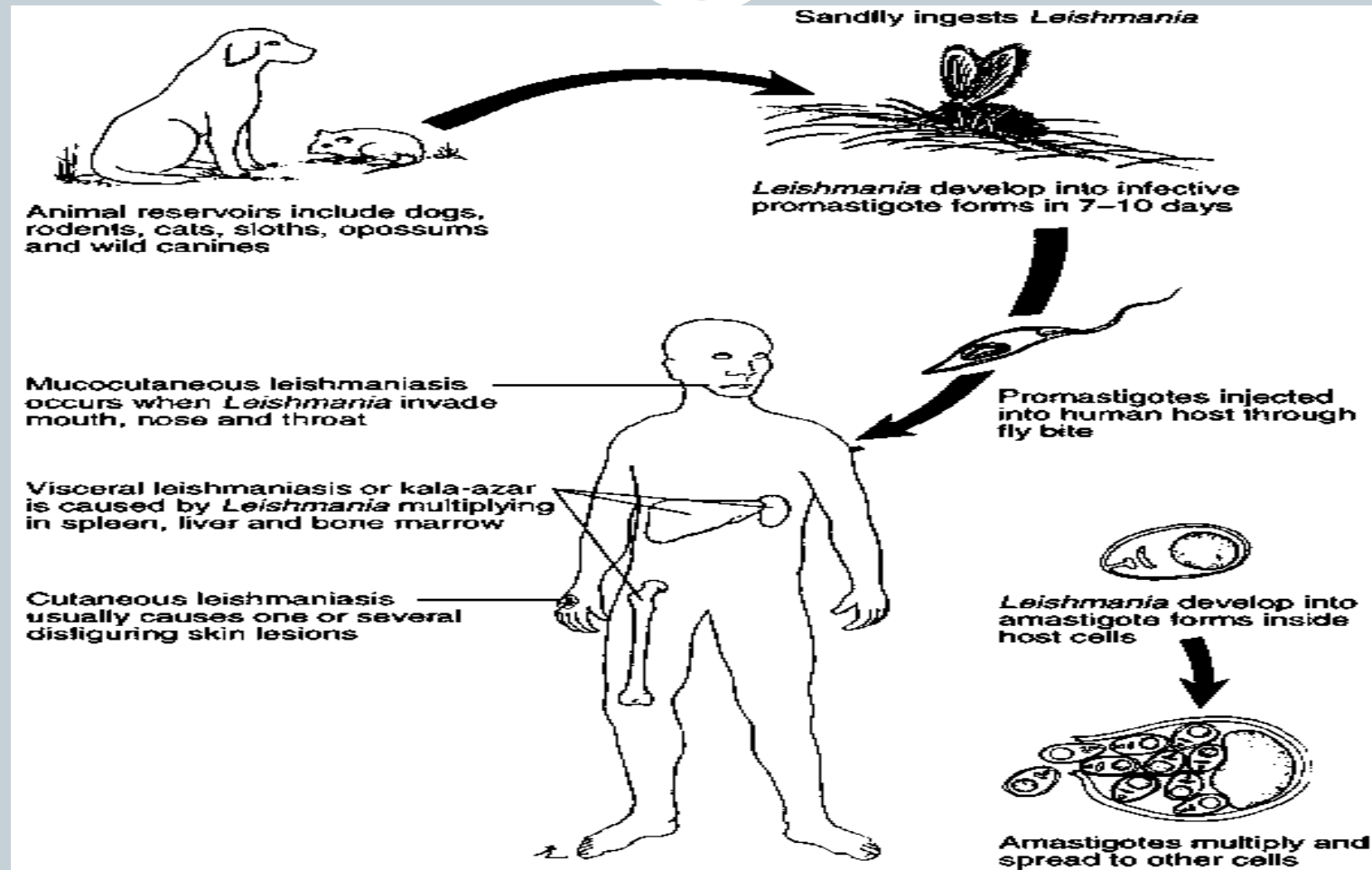


- These heavily parasitized cells wander through the general blood circulation leading to a general infection .
- These free and phagocytosed amastigotes in peripheral blood are then sucked by blood feeding sandfly.

Life cycle in man



Life cycle in man



Thank You

