

# **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



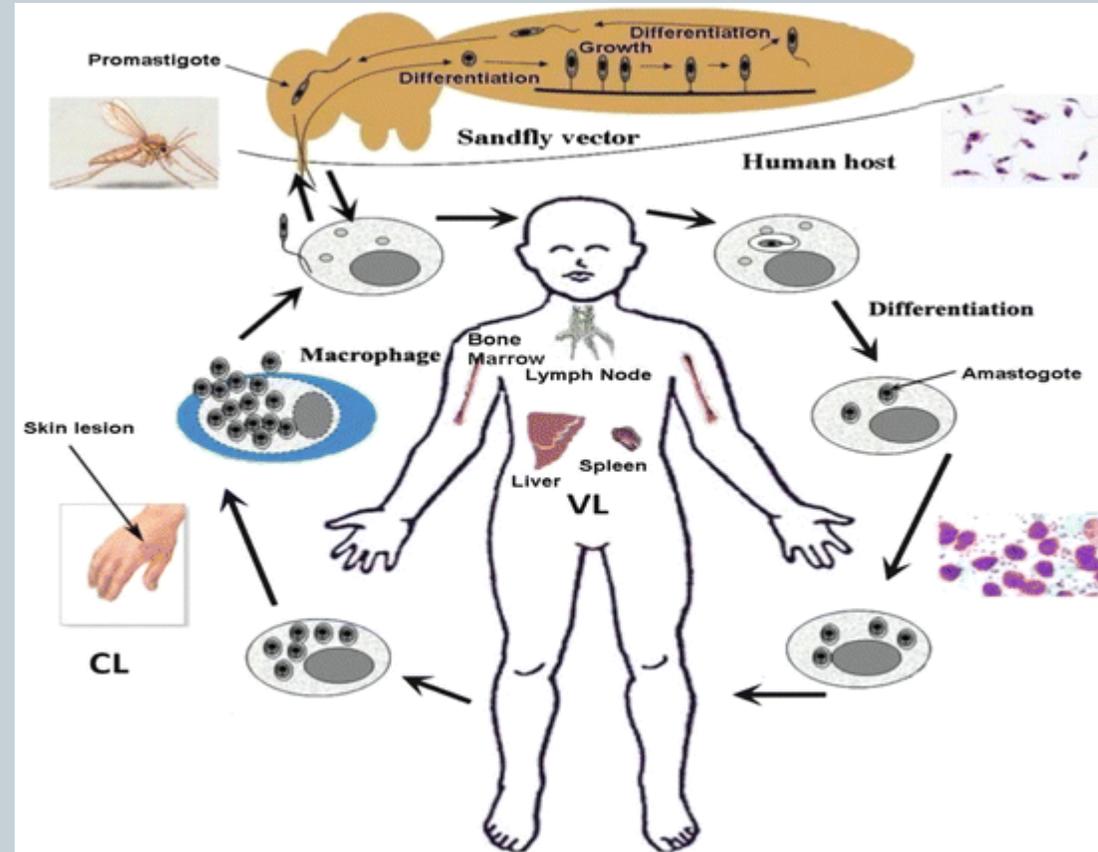
- The parasites liberated infects new cells and the cycle is repeated so that the reticuloendothelial system becomes progressively infected.
- Some of the free amastigotes become phagocytosed by the neutrophils and macrophages in the blood stream.

# Leishmania donovani – Lifecycle

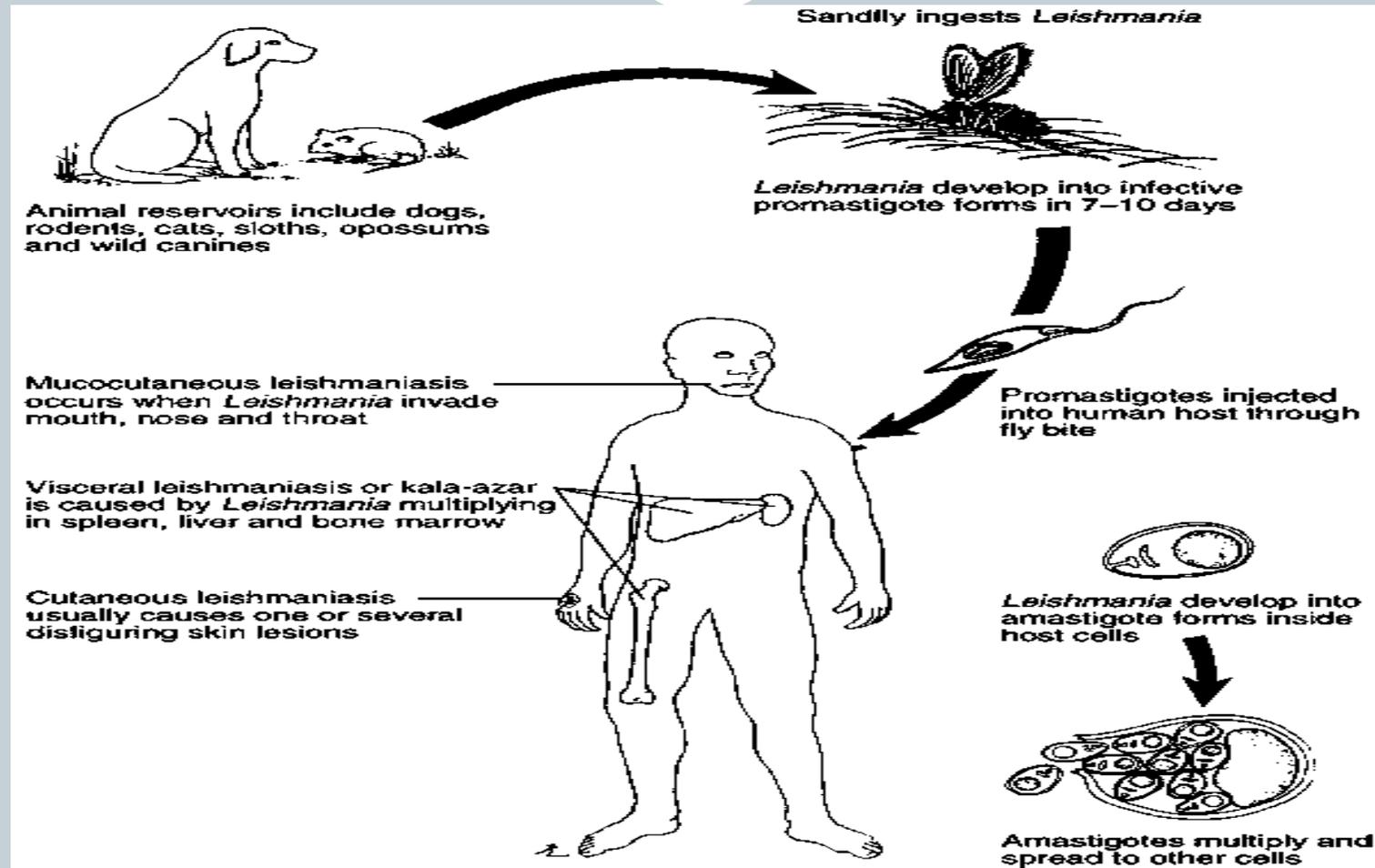


- These heavily parasitized cells wander through the general blood circulation leading to a general infection .
- These free and phagocytosed amastigotes in peripheral blood are then sucked by blood feeding sandfly.

# Life cycle in man



# Life cycle in man



*Thank You*

