

Visceral Leishmaniasis (Kala-azar)

A widespread tropical disease caused by an obligate intracellular protozoan parasite *Leishmania donovani* and *Leishmania infantum* and is transmitted by the bites of infected sand-flies.

VL Vectors:

- *Phlebotomus argentipes*
- *Phlebotomus papatasi*



(a)



(b)



(c)



VL Pathogen: *Leishmania* Parasite

Breeding Places: (a) Cattle shed;
(b) Floor underneath a fallen tree trunk;
(c) Near tree roots, where debris is present



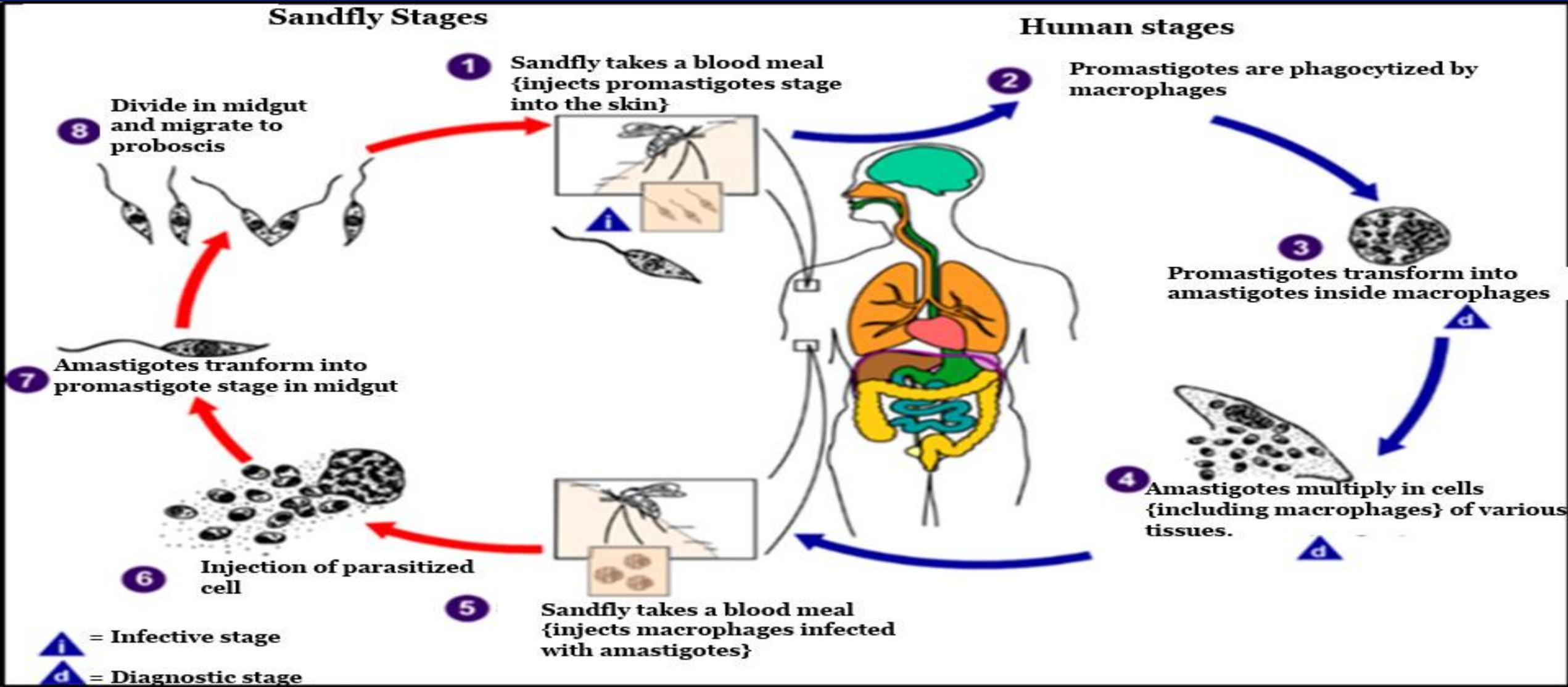
National Environmental Engineering Research Institute
Nehru Marg, Nagpur, Maharashtra-440020



UN environment programme



Life Cycle of Visceral Leishmaniasis



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What is Kala-azar?

Kala-azar (Leishmaniasis) is a parasitic infection transmitted by the bite of an infected female sandfly whose hosts are animals, such as dogs or rodents, or human beings. In India *Leishmania donovani* is the only parasite causing this disease.

The parasite primarily infects reticuloendothelial system and may be found in abundance in bone marrow, spleen and liver

Signs & Symptoms

- Enlargement of the spleen
- Enlargement of the liver
- Night sweat
- Bleeding
- Blackening of the skin
- Scaly skin
- Dark and ashen skin
- Cough
- Weakness
- Substantial weight loss



Vector

There is only one sandfly vector of Kala-azar in India *Phlebotomus argentipes*. Sandflies are small insects, about one fourth of a mosquito. The length of a sandfly body ranges from 1.5 to 3.5 mm. Sandflies breed in favorable micro-climatic conditions in places with high organic matter that serve as food for larvae.

Transmission

- In India kala-azar is transmitted from person to person by the bite of the female phlebotomine sandfly.
- Transmission may also take place by contamination of the bite wound or by contact when the insect is crushed during the contact act of feeding
- Blood transfusion
- Contaminated syringes and needles



Prevention

- Preventing sandfly bites is the most immediate form of protection. You can prevent a bite by:
- Putting fine mesh netting around the bed
- Screening windows
- Wearing insect repellent
- Wearing protective clothing
- Public health measures to reduce the sandfly population and animal reservoirs

KALA-AZAR

(Leishmaniasis)

Phlebotomus argentipes

