

Lymphatic Filariasis Characteristics and Life Cycle



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Characteristics

Elephantiasis

Elephant

Lymphatic filariasis is also well known as elephantiasis. It is a condition in which the limbs and skin thicken, causing the affected area to appear large.

Nematode (Roundworm)

Knee-toad with Roundworms

Lymphatic filariasis is caused by roundworm parasites from the family Filarioidea. The nematodes can enter the body through female mosquito bites and cause elephantiasis are Wuchereria bancrofti and Brugia malayi.

Etiology

Brugia malayi

Brew-chia Malaysia

Brugia malayi is a nematode that causes lymphatic filariasis.

Wuchereria bancrofti

Witch Bankruptcy

Wuchereria bancrofti is responsible for around 90% of lymphatic filariasis cases.

Transmission

Female Mosquito

Female-symbol Mosquito

Lymphatic filariasis is transmitted by female mosquitoes.

Life Cycle



Microfilariae Infect Mosquito

Small-filer Infect Mosquito

Microfilariae are ingested by mosquito during a blood meal. To contract lymphatic filariasis, an individual generally needs to be bitten by an infected mosquito, which introduces microfilariae into the bloodstream.

Mature into Larvae

Worm

The microfilariae develop into larvae that can infect a host when a mosquito carrying them bites a human.

Larvae Deposited on the Skin

Worm Inside the Skin

Larvae are deposited on the host's skin after the infected mosquito bites the host.

Larvae Migrate to the Lymphatic Vessels

Worm Migrate to Lymph-limes

Larvae migrate to the lymphatic vessels and then transform into adult worms.

Invade Lymph Nodes

Invading Lime-Nose

Adult worms invade the lymph nodes and inhabit the lymphatic vessels and afferent lymphatics of the lymph nodes.

9 Months to 1 Year Incubation Period

Incubator (9) Lives-cat (1) Wand

The incubation period of filariasis is around 9 months to 1 year. The adult filariasis worm can survive around 5-8 years, although sometimes, it can survive 15 years or more. People residing in tropical/sub-tropical areas with a high prevalence of lymphatic filariasis have a high risk of infection, while short-term tourists have a low risk.