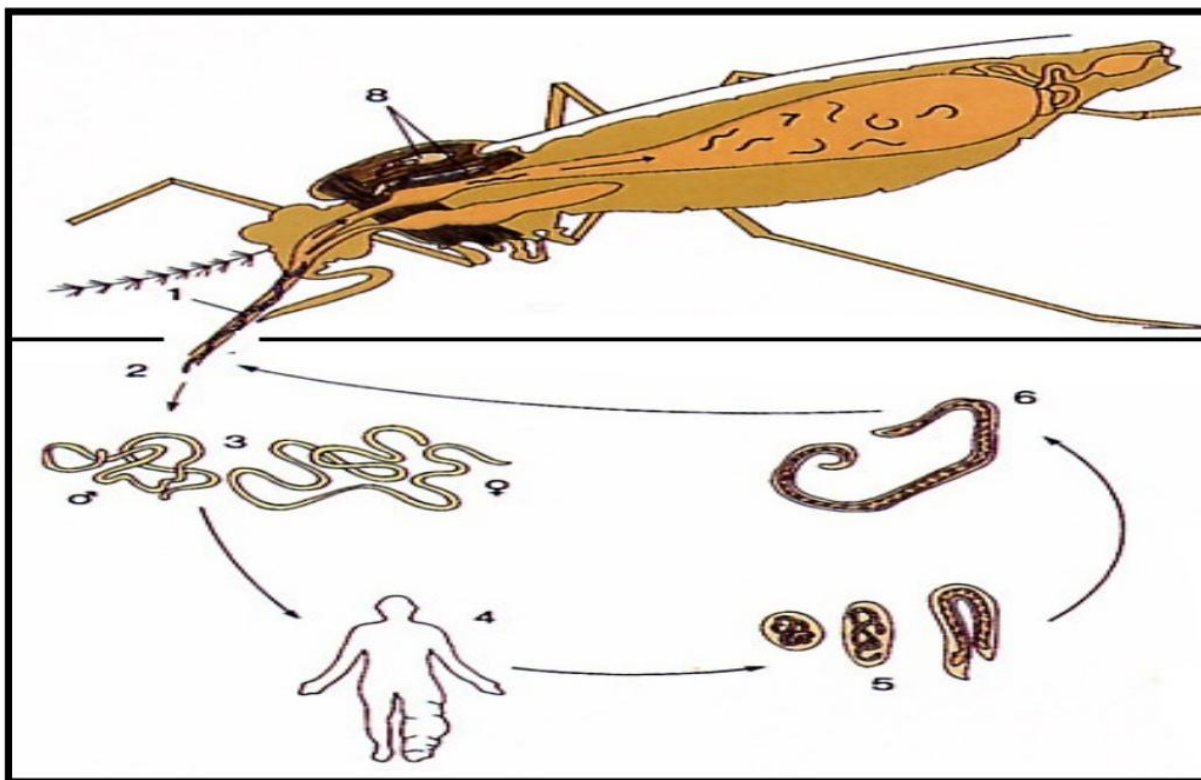


Wucheraria bancrofti

- Primary causative agent of lymphatic filariasis
- Overt bancroftian filariasis : 115 million cases worldwide (45.5 million India, 40 million sub-Saharan Africa)
- Widespread throughout the subtropics and tropics (for e.g. Central Africa, India, Thailand, Malaysia, Phillipines, Pacific Islands, Haiti, coastal Brazil)



Characters of the Adult Parasites

- An Adult female *Wuchereria bancrofti* is about 80–100 mm long and 0.24–0.30 mm in diameter, whereas a male is about 40 mm long and 0.1 mm in diameter.

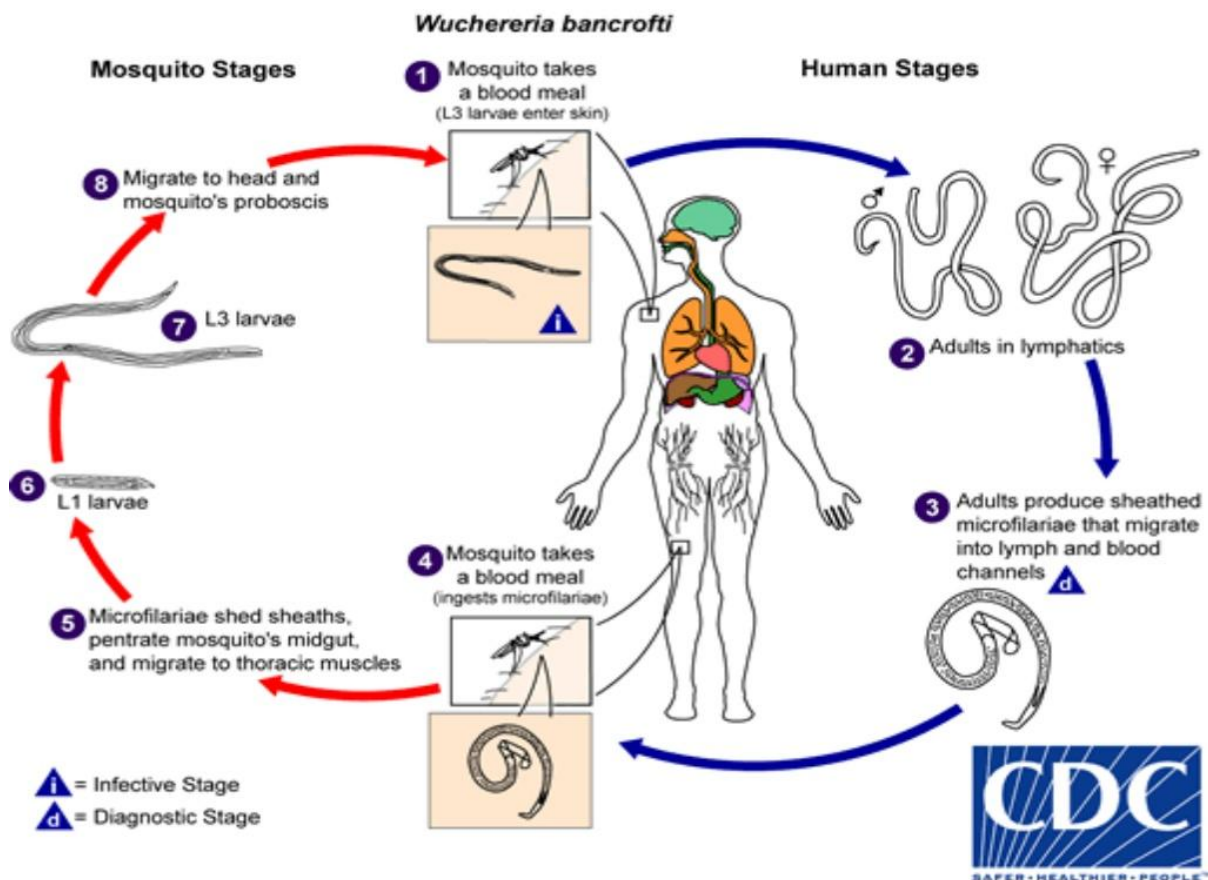


How the Larva Appear

- A microfilaria is about 240–300 μm (micrometers) long and 7.5–10 μm thick. It is sheathed and has nocturnal periodicity, except the South Pacific microfilaria which does not have marked periodicity. It has a gently curved body, and a tail that is tapered to a point.

How the Larva Appear

- The nuclear column (the cells that constitute its body) is loosely packed. The cells can be seen individually under a microscope and do not extend to the tip of the tail.



Multiplication and Life Cycle

- Adult female worms produce microfilariae. Feeding vector mosquitoes ingest microfilariae from the bloodstream. In the mosquito the microfilariae mature to infective larvae, which migrate to the mosquito's mouth-parts, enter a new host via the vector's puncture wound, migrate to the lymphatics, mature, and mate.

Why Clinical Manifestations

- Disease manifestations are due to lymphatic dysfunction resulting from the presence of living and dead worms, lymph thrombi, inflammation, and immune reactions to worms and worm products.

Pathogenesis and Pathology

- Complex interplay of the pathogenic potential of the parasite, the immune response of the host, and external ('complicating') bacterial and fungal infections.
- Most recognizable – Genital damage (Hydroceles) and Lymphoedema/elephantiasis

Clinical features.

There are chronic, acute and asymptomatic presentations of lymphatic filarial disease, as well as some syndromes associated with these infections. Among chronic manifestations, *hydrocele*, even though found only with *W. bancrofti* infections not in *Brugia* infections is the most common clinical manifestation of lymphatic filariasis.

Disease Manifestations

- Although the parasite damages the lymph system, most infected people have no symptoms and will never develop clinical symptoms. These people do not know they have lymphatic filariasis unless tested. A small percentage of persons will develop lymphedema.

Disease Manifestations

- This is caused by fluid collection because of improper functioning of the lymph system resulting in swelling. This mostly affects the legs, but can also occur in the arms, breasts, and genitalia. Most people develop these symptoms years after being infected.

Symptoms

- Fever
- Kidney damage
- Skin abnormalities due to bacterial infection.
- Elephantiasis
 - Swelling of limbs and genitalia
 - Male: Enlargement of scrotum, penis retracted under skin, spermatic cords thickened
 - Female: Long tumorous mass covered by thickened ulcerated skin develops on the vulva



Social Impact of Disease



- Sexual Disability
- Communities frequently shun those disfigured.
- Inability to work
- Women with visible signs may never marry or spouses and families will reject them.