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**What are nematodes?**

The word nematode is derived from Greek words-

 Nema Meaning thread

 And odes means resembling

 it is also known by different names like threadworm roundworm or category of helminthis.it is the largest group of animal kingdom comprising about 80-90% of all multicellular anima .it found everywhere where life can exist from arctiscts to tropics from highest to mountain, they may be free living in soil or in water or may live as parasite on animal and plants

 **GROUPS OF NEMATODES INCLUDE**

 **TRICHINELLA**

 **FILARIA.**

Trichinella are tissue nematodes that cause trichinellosis .this Species that infect humans include: T. spiralis, T. pseudospiralis, T. native, T. nelsoni, T. bitovi, T. murelli, and T. papuae.

Filaria consist of a group of tissue nematodes, including Wuchereria Bancroft, Brugia malayi, and Brugia timori, which cause lymphatic filariasis, Onchocerca volvulus, which causes onchocerciasis (river blindness), and Loa loa, which causes loiasis.

**TRICHINELLA**

It the smallest nematode parasite of humans, have an unusual lifecycle, and are one of the most widespread and clinically important parasites in the world. The small adult worms mature in the small intestine of a definitive host, such as a pig. Each adult female produces batches of live larvae, which bore through the intestinal wall, enter the blood and lymphatic system, and are carried to striated muscle. Once in the muscle, they encyst, or become enclosed in a capsule. Humans can become infected by eating infected pork, horsemeat, or wild carnivores such as fox, cat, or bear

**T.PSEUDOSPIRALIS**

It lives on terrestrial animals. The primary hosts for these worms are birds, and they are commonly seen on captive American kestrels. They have a wide distribution that is limited by temperature. This parasite is seen in domestic environments as well as temperate, torrid, and frigid zones.

One of the Trichinella genus of parasitic nematodes, the causative agents of trichinosis it also known as trichinellosis. Trichinella nelsoni is found eastern Africa and infects predators and scavengers.

**TRICHINELLA NATIVA**

Trichinella native is a nematode worm, one of the species of the genus Trichinella, found in arctic and subarctic regions. One of the Trichinella genus of parasitic nematodes, the causative agents of trichinosis

**TRICHINULLA NELSONI**

It is also known as trichinellosis. Trichinella nelsoni is found eastern Africa and infects predators and scavengers.

 **TRICHINULLA BRITOVI**

Trichinella britovi is a nematode parasite responsible for a zoonotic disease called trichinellosis.

**TRICHINULLA PAPUAE**

Trichinella Papua is a nematode parasite responsible for a zoonotic disease called trichinellosis, predominantly in Thailand.

**SYMPTOMS**

Symptoms include diarrhea, abdominal cramps, muscle pain, and fever. People acquire the infection by eating raw or undercooked contaminated meat. At first, people have nausea, diarrhea, abdominal cramps, followed later by muscle pain, weakness, fever, headache, and sometimes inflammation of other organs.

**WUCHEREIA BANCROFT**

Wuchereria bancrofti is a human parasitic worm that is the major cause of lymphatic filariasis. It is one of the three parasitic worms, together with Brugia malayi and B. timori, that infect the lymphatic system to cause lymphatic filariasis. These filarial worms are spread by a variety of mosquito vector species.

**TRANSMISSION**

The disease is usually transmitted through the bite of an infectious mosquito. Overall there are 6 genera and 70 species of mosquitoes responsible for the spread of Wuchereria Bancroft

**BURGIA MALAYI**

Brugia malayi is a nematode, one of the three causative agents of lymphatic filariasis in humans. Lymphatic filariasis, also known as elephantiasis, is a condition characterized by swelling of the lower limbs.

**TRANSMISSION**

 Transmitted by the bites of infected mosquitoes and have quite similar life cycles in humans with the adult worms living in the afferent lymphatic vessels while their progeny, the microfilariae

**BURGIA TEMORI**

Brugia timori is a human filarial parasitic nematode which causes the disease "Timor filariasis", or "Timorian filariasis.

**SYMPTOMS**

Like other human filariasis infections, Brugia timori filariasis causes acute fever and chronic lymphedema. The life cycle of Brugia timori is very similar to that of Wuchereria Bancroft and Brugia malayi, leading to nocturnal periodicity of the disease symptoms.

**TRANSMISSION**

Its transmission is same like burgi malayi

**ONCHOCERCA VOLVULUS**

Onchocerca volvulus is a nematode that causes onchocerciasis (river blindness), and is the second-leading cause of blindness worldwide after trachoma. Onchocerca volvulus transmitted by repeated bites of infected blackflies. In the human body, the adult worms produce embryonic larvae that migrate to the skin, eyes and other organs

**SYMPTOMS**

 include skin changes, itching, nodules, and alterations in vision.

**TRANSMISSION**

Onchocerciasis is an infection caused by the parasitic worm Onchocerca volvulus, spread by the bite of an infected Simulium blackfly. It is also called river blindness because the fly that transmits infection breeds in rapidly flowing streams, mostly near remote rural villages, and the disease that is caused by O.

**LOA LOA**

Loa loa is the filarial nematode (roundworm) species that causes Loa loa filariasis. Loa loa actually means "worm worm", but is commonly known as the "eye worm", as it localizes to the conjunctiva of the eye.

**SYMPTOMS**

Symptoms of Loa loa filariasis include swelling of the joints, itching, fatigue, muscle and joint pain, and worms crawling visibly under the skin and across the eyes. This disease is diagnosed by examining a blood sample under a microscope, looking for the larvae of the Loa loa worms.

**TRANSMISSSION**

It is passed on to humans through the repeated bites of deerflies (also known as mango flies or mangrove flies) of the genus Chrysops. The flies that pass on the parasite breed in certain rain forests of West and Central Africa