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Taenia Solium

Taenia solium is a cestode, or tapeworm, known as the "pork tapeworm." It can cause two forms of disease: taeniasis and cysticercosis. Taeniasis occurs from ingestion of taenia larvae in undercooked pork, and leads to intestinal infection. Cysticercosis occurs from ingestion of taenia solium eggs, and larval cysts infiltrate the muscles, CNS and skin. Treatment includes praziquantel and albendazole.



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Pathophysiology

Cestode (Tapeworm)

Crest-toad with Tapeworm

Taenia solium is a cestode, or tapeworm. It can lead to two different infections in humans, where one comes from larval ingestion, and the other comes from egg ingestion.

Taeniasis

Tan-lioness

Taeniasis describes the infection that occurs from ingesting the larval form of taenia solium. It leads to infection of the small intestines, and may be asymptomatic.

Ingestion of Larvae in Undercooked Pork

Ingestion of Larvae in Undercooked Pork

Taeniasis can be developed when humans ingest undercooked pork meat, which contains larval cysts.

Asymptomatic, in Bowels

Thumbs-up Bowel-bowl with worm inside

The larvae (cysticerci), once ingested, grows into an adult worm in the human small intestines. This infection is generally harmless and can be asymptomatic in patients. Sometimes, patients can complain of GI upset.

Cysticercosis

Sister-circus

Cysticercosis is the more dangerous illness derived from Taenia solium. It occurs when larval eggs are ingested. The larvae (cysticerci) mature in the body and form cysts that embed into varying parts of the human body (skin, muscles, CNS).

Ingestion of Cestode Eggs

Ingestion of Crest-toad Eggs

Cysticercosis occurs from the ingestion of cestode eggs, leading to larval cysts within the body. This disease process is more serious than taeniasis.

Skin, CNS and Muscles

Skin-suit-man, CNS-brain and Muscle-man

The ingestion of eggs in cysticercosis leads to larval cysts being formed in the human host. These cysts can be formed in the skin, muscles or central nervous system. Neurocysticercosis is the most severe form, affecting the brain, which is a cause of epilepsy.

Treatment

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Albendazole

Abe-Bond

Albendazole is an antihelmintic medication which is indicated for treating neurocysticercosis.

Praziquantel

Pretzel-queen

Praziquantel is a broad-spectrum antihelmintic medication that is used to treat this flatworm infection. It is especially helpful for treating intestinal taeniasis, or forms of cysticercosis (with exception to neurocysticercosis).