

TOKSOPLAZMOSIS GONDII

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Abstract

Toxoplasmosis gondii causes an infectious disease called toxoplasmosis. The main hosts of this parasite are animals belonging to the feline family. The intermediate hosts are humans, mammals and birds. Toxoplasmosis is mainly spread in countries with hot and humid climates, because the oocysts live well in such an environment. Toxoplasmosis belongs to the type of simple animals, the class of spores, the family of coccidian. There are 4 ways of human transmission: oral, contact, transplacental, and airborne. The duration of the incubation period lasts from a few days to 3 weeks before the first symptoms of toxoplasma enter the body. The diseases can appear in an acute, hidden or chronic form. The disease can be acquired or congenital. Toxoplasmosis is the most dangerous during pregnancy. The reason is that it passes from the mother to the child and disrupts its development, and as a result, the child abortion also possible or it can affect the development of organs of vision, brain, and spinal cord, causing birth defects and various pathologies. Key words: Toxoplasmosis, symptoms, epidemiology, diagnosis, serological test, retinochoroiditis, antibody, IgG, IgA, IgM. Research purpose: Ways of transmission of toxoplasmosis gondii to humans, their diagnosis and the pathologies they cause in the human body. Research materials and results: In oral transmission of toxoplasmosis, fruit contaminated with its transmitted to humans mainly through undercooked meat (such as pork, lamb, and venison) or through shellfish (such as mussels). It can also be spread through knives, utensils, cutting boards that have come into contact with raw contaminated meat or shellfish. It is also transmitted by drinking unpasteurized goat's milk (taxyzoites). Animal to human transmission (zootnik). Cats play an important role in this. A cat is a parasite on itself can be infected by eating rodents, birds or other animals infected with the cat is the main host of toxoplasmosis, and it lives in the intestines of cats and produces many oocysts. It releases the formed oocysts into the external environment through its excrement. Humans get toxoplasmosis when they change the cat's litter box or when they eat food and water contaminated with cat feces. Oocysts can also be transmitted accidentally through soil (for example, not washing hands after gardening or eating something without washing). Transplacental transmission, that is transmission from mother to child through

the placenta. If a woman is infected with toxoplasmosis during pregnancy, it will be transmitted directly to the child. Abortion or stillbirth may occur later. An unborn child can also be seriously harmed. For example, early growth retardation in brain tissue, damage to or delay in the development of organs such as eyes, liver, and intestines.

In rare cases, people can get this infection through blood transfusions and organ transplants. In addition, laboratory workers working with infected blood can also become infected by accidental vaccination. *Toxoplasma gondii* cysts are usually spherical in the brain but oblong in the heart and skeletal muscle. It can be located anywhere in the host's body, but is most often found in the brain, skeletal and heart muscles. Forms of manifestation of the disease. As we mentioned above, it appears in the body in 3 different forms: Acute toxoplasmosis begins with a sharp rise in temperature, fever and intoxication (shivering, pain in muscles and joints). The size of the spleen and liver increases (hepatosplenomegaly), lymph nodes enlarge (especially in the throat and neck area), pink rashes appear on the skin, which can spread to the whole body. In a very severe case of the disease, it can end in death. The chronic form of the disease is asymptomatic (without symptoms) or with vague symptoms. Basically, the symptoms are similar to those of the "flu": rapid fatigue, dizziness, headache, muscle pain, blurred vision, fever, lethargy observed. The hidden form is characteristic of most people, and 2-3 weeks after the parasite enters the body, the person feels a little discomfort. He will come to his senses soon. Diseases caused by the human body:

- 1) Microcephaly
- 2) Hidrocefalia
- 3) Deafness
- 4) Brain calcifications (in tissues precipitation of Ca salts)
- 5) Seizures
- 6) Psychomotor retardation (mental weakness)
- 7) Hepatosplenomegaly
- 8) Fever
- 9) Lymphadenopathy
- 10) Chorioretinitis (retina and inflammation of the choroid)

Diagnostics.

Since toxoplasmosis does not cause specific symptoms, it causes confusion with other diseases. The best way to diagnose it is through a blood test. Antibodies (substance produced by the body to protect itself from infection) are produced in the blood of a person infected with toxoplasma. Including IgG, IgA, IgM. If acute infection is suspected, the patient should be tested for IgG and IgM antibodies in his blood. However, serologic tests are less reliable in diagnosing some immunosuppressed patients. In such a situation, it is recommended to undergo PCR diagnostic test. PCR can also be performed in amniotic

fluid, which helps to detect fetal infection after acute maternal infection. Although there is a therapeutic drug against this infection, it is difficult to say that it will completely protect the fetus. Spiramycin should be started immediately in patients infected with *Toxoplasma*. It is recommended to start Triple therapy consisting of Pyrethamine + Sulfadiazine + Folinic acid.

What should be done to prevent toxoplasmosis?

- 1) Don't eat raw, undercooked meat
- 2) Wear the gloves when you are working with gardening, soil
- 3) Change the cat litter box daily
- 4) Don't feed cats raw meat
- 5) Don't adopt street cats, do not keep them at home
- 7) Don't kiss your cat
- 8) Wash your hands to avoid infection

According to the data, France is the most common area of toxoplasmosis. The reason is that the consumption of raw, undercooked meat is widespread among the population it is. The reason for its widespread distribution in Central America is that the climate is favorable for the survival of oocysts.

Summary

To avoid getting toxoplasmosis, it is necessary to eat well cooked meats and wash hands after contact with cats.

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