Toxoplasmosis in the Greece

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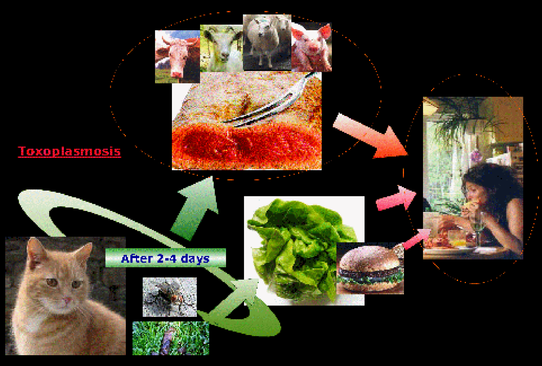
Toxoplasmosis is a common parasitic disease in humans (13.8-60%) and animals (0.9% of cats, 2.35-44.75% of dogs, 26.2-39.7% of ruminants e.t.c.) in Greece. In our laboratory were detected specific IgG (ELISA) in 18.2% of 935 patients suspected for Toxoplasmosis.

The unsporulated oocysts of the protozoan parasite *Toxoplasma gondii* are passed into the enviromental in the stool of the infected cats (for 2 to 20 days in the whole lifespan of the cat) and sporulate becoming infectious in 2 to 4 days. Human and animals can not be directly infected by cats.



Humans and animals are infected by ingesting *T.gondii*-cysts (in the meat of infected animals eaten raw or undercooked) and by ingesting sporulated oocysts of *T.gondii*, in raw and unwashed vegetables, fruits e.t.c.

Infection during pregnancy (or during lactation) can result in transplacental (or in lactogenic) infection of the foetus (or of the newborn).

The people are more likely to acquire an infection by handling or eating raw meat. No correlation between cat ownership and infection with toxoplasmosis is detected.

With the exception of young and immunosuppressed organisms, pathology and symptomatology are often overlooked and the infection lead to premunition.

Diagnosis of toxoplasmosis can be made through immunologic techniques. The IgM antibodies correlates with the active disease, while the IgG ones are produced during the chronic stage of the infection.

Level of specific antibodies and antigens in the toxoplasmosis.

Stages of infection	Antigen	IgM	IgG	IgE	IgG & IgM (*)
Acute stage					
1st month	+++	+++	+	+	+
2nd to 3rd month	++	++	++	++	+++
Subacute stage					
3rd to 8th month	+	+	+	+	++
Chronic stage					
>8th month	-	+	++	-	-
Relapse/Reinfection	++	+	+	+	+

(*) Complement fixing specific antibodies

Treatment is reasonable and effective only during the acute infection or during the relapses of the disease by given**:**

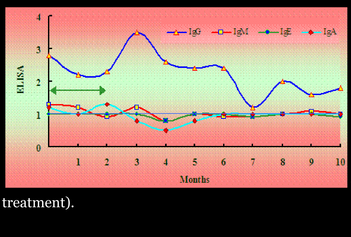
a) in the **human**(*), at least for 30 days, pyrimethamine (25 mg/day) plus folic acid (5 mg/day) and clindamycin (150 mg/8 hours) or spiramycine (500 mg/8 hours). During pregnancy is given only spiramycine (3 g/day for at least 3 weeks),

b) in the **cat**, clindamycin (25-50 mg/kg/8-12 hours for 15 days) or spiramycin (25 mg/kg/8-12 hours for 2-3 weeks) or trimethoprim sulfate (120 mg/kg/12 hours for 15 days, no during pregnancy) or pyrimethamine (25 mg/day + sulfadiazine 73 mg/kg/day + folic acid 5 mg/day for 30 days, no during pregnancy),

c) in the **dog**, clindamycin (10-40 mg/kg/day for 30 days or pyrimethamine (25 mg/day + sulfadiazine 73 mg/kg/day + folic acid 5 mg/day for 30 days, no during pregnancy) e.t.c.

To prevent infection with *T.gondii*, meat or milk should be well cooked and vegetables, fruits e.t.c. should be thoroughly washed. Proper hygiene (hand washing e.t.c.) should also be practiced following gardering or other activities that might bring one into contact with old cat faeces (after 2-4 days in the enviromental).

(*) In our laboratory were detected specific IgG in 18.2% of 935 patients suspected for Toxoplasmosis. 18 persons of them (8 to 45 years old), were specifically treated and the values of *T.gondii*-IgG, -IgM, -IgE and -IgA were determined in ELISA for 10 months. After a 2-months chemotherapy the specific IgG values rose and remained provable with low values at least for 10 months. The specific IgM, IgE and IgA were weakly provable and limited only in the majority of the patients in the first two to three months of the treatment.



Toxoplasma gondii-Abs after two months chemotherapy in 18 patients (double arrow, duration of the treatment).

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