

## ***T. gondii* strains and their dosage influence the parasitic load in tissues of experimentally infected pigs**

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One of the major routes of a *Toxoplasma gondii* infection in humans is the consumption of raw or undercooked meat. In the present study, we compared the parasitic load induced by 2 different *T. gondii* strains in the tissues of experimentally infected 6 weeks old pigs.

In the first experiment, pigs were orally infected with 3000 tissue cysts of IPB-*Gangji* strain. The pigs were euthanized 2 and 6 months after infection, and the following samples were tested by bio-assay and qPCR: brain, heart and several skeletal muscles. Two months after infection, all samples tested positive with both tests. Remarkably, after 6 month no cysts were detected in tenderloin and ham, while brain and heart tissue remained infectious.

In the second experiment, pigs were infected orally with a low (700 cysts) and a high (6000) dose of *T. gondii* IPB-*Gangji* cysts and euthanized after 4 months. The parasitic load was much higher in the low dose group than in the high dose group, as determined by qPCR. In most animals various samples tested negative in both groups, with the exception of the intercostals muscles.

Last experiment was repeated with a low and a high dose of the *T. gondii* IPB-*LR* strain. Here, all samples remained infectious with no significant difference in parasitic load between both groups. The parasitic load was higher in brain and heart tissue compared to the skeletal muscles.

In bio-assay, numerous mice died from the inoculated samples from pigs infected with the IPB-*Gangji* strain. Ascites and lungs tested *T. gondii* positive by qPCR. When inoculated with samples from pigs infected with the IPB-*LR* strain, no mice died from acute *T. gondii* infection.