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Trichinosis what is it? How is it transmitted to humans? How to prevent it?

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Abstract

Trichinellosis is a zoonosis caused by nematode parasites from the genus *Trichinella*.

It is a disease spread all over the world and endemic in most countries of the European Union, where is considered a re-emerging food-borne disease, with 1073 human cases notified in 2009.

This disease is strongly associated with domestic pig (*Sus domestic*) and wild boar (*Sus scrofa*), but it can affect a wide range of domestic and wild animals (hosts). Domestic pigs can be infected by eating food scraps or meat mainly provided by man, or through ingestion of dead animals (mostly rats) infested with *Trichinella*.

Men can also be affected through the consumption of meat from infected animals. In Western Europe, this disease is caused mainly by the consumption of raw or undercooked meat of pork, wild boar and horse. More than 50% of human trichinellosis in Spain are associated to wild boar meat that isn't inspected. The other 50% are related to pork meat that is slaughtered at home and also not subjected to inspection. We believe that in Portugal the situation is the same, but local alimentary habits as well as production systems, will define the importance that different kind of meat have as a potential source of Trichinellosis in humans.

Trichinellosis prevention is based on three fundamental pillars: correct management practices of pigs, with thermal treatment of food from animal origin before administering it to domestic pigs, preventing the access of birds and rodents to facilities and the correct disposal of animal carcasses; Trichinella research in muscle tissues as a routine food inspection before the consumption of the meat and application of appropriate heat treatments of the meat before human consumption (cooking and freezing in correct time/temperature are highly effective).

In conclusion we can say that Trichinellosis is a disease that can be easily controlled, once preventive measures are taken to protect both animal and public health.