Subjects
Animal Health
Disease Cards
- Bluetongue
- Contagious bovine pleuropneumonia (CBPP)
- Contagious caprine pleuropneumonia (CCPP)
- Sheep and goat pox (SGP)

Zoonotic Diseases
- Anthrax
- Avian Influenza
- Botulism
- Bovine Spongiform Encephalopathy - BSE [Spanish only]
- Brucellosis, bovine
- Brucellosis, ovine/ caprine
- Cysticercosis (bovine)
- **Cysticercosis (porcine)**
- Escherichia coli [Spanish only]
- Hydatid disease
- Leptospirosis
- Listeria monocytogenes [Spanish only]
- Q fever
- Rabies
- Rift valley fever (RVF)

ANIMAL HEALTH DISEASE CARDS

Cysticercosis (Cysticercus cellulosae infestation, porcine)

Cysticercus cellulosae found in pigs is the intermediate stage of the tapeworm Taenia solium, which occurs in the small intestine of humans. T. solium is longer than T. saginata which also occurs in the small intestine of humans.

Cysticerci in pigs are found in the brain, liver, heart and skeletal muscles. They cause an inflammatory response in the muscle and central nervous system. In humans, auto-infection can occur from the adult worm in the intestine. The most frequently affected site is the central nervous system.

Life cycle

After 2 - 3 months of cysticercus development in pigs, pearly white cysts with an invaginated scolex may be seen in the muscles. With ingestion of infected pork by humans, the larvae evaginate and attach to the proximal part of the live for many years in the environment. The ingestion of proglottides by scavenging pigs is the most frequent way of transmission of cysticerci to swine. Larvae hatch from eggs in the pig intestine and they further migrate to muscle tissue, brain, liver and other organs. The use of inadequately treated human excrements as fertilizer is the other cause of porcine cysticercosis. The auto-infection of the central nervous system with the larval form of cysticercus in humans is manifested with headache, dizziness, hydrocephalus, loss of vision and nausea.

Life cycle of Taenia solium (Courtesy G.J. Jackson, Division of Microbiology, US FDA, Washington D.C., USA)

Ante-mortem findings

1. Fever in acute stages
2. Muscle stiffness

Post-mortem findings

1. Cysts in the heart and skeletal muscles
2. Cysts in liver, brain and meninges

Judgment

Heavy infestation with Cysticercus cellulosae calls for carcass condemnation. In light or moderate infestation, the carcass may be conditionally approved pending heat or freezing treatment. Due to scavenging nature of pigs, infection is usually found only in free range animals and not sty raised ones. Carcasses are usually severely affected ("pearly pork") and are condemned despite provision for freezing treatment.

Differential diagnosis

Myositis, abscess and granuloma caused by injection

also in the AGA website...
- Veterinary Public Health
- Software Downloads

Cellulosae cysts in the liver

Cellulosae cysts in the brain

Related Links
- CDC - Cysticercosis
- CDC Factsheet
- Emerging Infectious Diseases - Cysticercosis
- Entrez-PubMed: Diagnosis
- OIE classification of diseases: List B
- Proceedings of the 10th Conference of the Association of Institutions for Tropical Veterinary Medicine, 2001

- Sarcocystosis
- Toxoplasmosis
- Trichinosis
- Tuberculosis

Comments: AGA-Webmaster