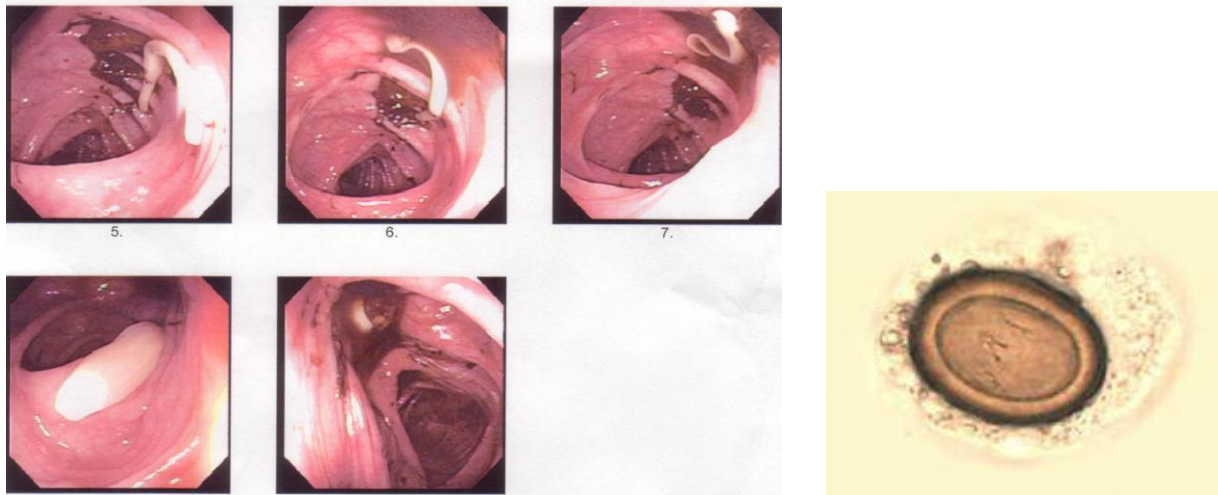


Case History #2

Answer: *Taenia asiatica*



Based on the appearance of eggs and proglottids, the diagnosis was first believed to be *Taenia saginata*, the beef tapeworm. However, on further investigation including patient history, the worm probably is *T. asiatica* (also known as the Asian *Taenia* sp.).

T. asiatica has been recognized since the early 1990s as a third cause of human taeniasis. The cestode was first detected in Taiwanese aboriginals but is now recognized as an important human parasite in a number of Asian countries and Pacific islands where prevalence may approach 10-20%.

The worm exhibits a *T. saginata*-like morphology, but a *T. solium*-like lifecycle since pigs are the typical intermediate hosts where metacestodes develop in the liver

rather than in muscle tissue. Infection occurs from ingestion of raw viscera.

T. asiatica does not appear to be a cause of human cysticercosis like *T. solium* and genetic studies have revealed a closer association to *T. saginata*.

The morphologies of *T. saginata* and *T. asiatica* are so similar that diagnosis is usually made by clinical history. Gravid proglottids look identical with both having more than 12 lateral uterine branches. The scolex of the adult *T. saginata* has no rostellum and is unarmed (no hooklets) while *T. asiatica* has an unarmed rostellum.

Whether *T. asiatica* represents a separate species or a subspecies of *T. saginata* (*T. saginata asiatica*) is still matter of debate.



Joseph DiPersio, PhD, DABMM

Dr. DiPersio is currently the Director of Clinical Microbiology at Summa Health System in Akron, OH and is an Associate Professor of Clinical Microbiology in Pathology at Northeastern Ohio Universities College of Medicine.

He is a Diplomate of the American Board of Medical Microbiology and has directed clinical microbiology laboratories for over 30 years.

Dr. DiPersio has also published over one hundred scientific journal articles and national meeting abstracts.