Diagnosing Tapeworm Infection

Peritoneal infections caused by larval tapeworms of the genus Mesocestoides are uncommon but may be underdiagnosed. This paper presents four cases of peritoneal cestodiasis. Clinical findings included vomiting and/or abdominal distention. Some dogs also were lethargic, dyspneic, and anorectic or had diarrhea. All dogs had evidence of granular matter in abdominal fluid at some point, although abdominocentesis revealed clear fluid at initial presentation in a few of the dogs. Abdominal fluid from dogs with peritoneal cestodiasis typically has a high protein content. The numerous white, flat, opaque flecks are the cestode larvae, and the fluid could be described as having a thin, tapioca-like or cream-of-wheat consistency. Diagnosis is based on demonstration of tetrathyridia in the effusion. The organisms are fragile, and push smears may disrupt them, making diagnosis difficult. They may also become compartmentalized by either fibrinous adhesions or pyogranulomatous inflammation, and will not be seen cytologically. They may also be missed if they have settled to the bottom of the tube and not resuspended. In some cases, only remnant cestode tissue will be present, and it occurs in the form of calcareous corpuscles. These are crystalline clear to slightly pink structures. Disseminated Mesocestoides infection carries a grave prognosis. In this report, long-term treatment with fenbendazole (up to 3 months in one case) resolved clinical signs in two dogs. One dog died, and one dog was returned to the referring clinician for follow-up.

COMMENTARY: Abdominal fluid can be used in the diagnosis of peritoneal cestodiasis in dogs with characteristic tetrathyridia and calcareous corpuscles. Dogs in the Northwest United States are at an increased risk, especially if they hunt or scavenge rodents or reptiles.—Patricia Thomblison, DVM, MS