


CLINICAL VIEW

TRITRICHOMONAS FOETUS **INFECTION IN CATS**

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A close-up photograph of a tabby cat's face, focusing on its large, bright blue eyes and white fur with dark stripes. The cat is looking directly at the camera. A red rectangular box is overlaid on the upper portion of the image, containing white text.

Tritrichomonas foetus, a protozoal parasite that infects the distal ileum and colon of cats, should be on the differential list for any cat with large- or mixed-bowel diarrhea, especially in patients failing to respond to empirical therapy for *Giardia* spp.^{1,2}

The route of transmission is presumed to be fecal–oral in nature.^{3,4} *T foetus* is not considered to be an important canine pathogen and is rarely the primary cause of diarrhea in dogs.⁵⁻⁷ To the authors' knowledge, there have been no reported cases of transmission to humans or direct transmission from a cat to a dog.

Clinical Signs

The most common clinical sign of *T foetus* infection is chronic, recurrent diarrhea of large-bowel origin characterized by hematochezia, tenesmus, and mucus. Cats may also be presented with mixed-bowel diarrhea.¹ *T foetus* should be on the differential list for any cat with large- or mixed-bowel diarrhea, especially in patients failing to respond to empirical therapy for *Giardia* spp.¹

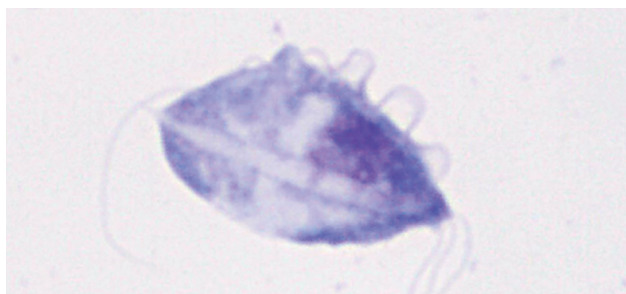
Diagnosis

T foetus may be diagnosed by visualization of the organism on a direct fecal smear or via fecal culture or polymerase chain reaction (PCR). For fecal smear or culture, a freshly voided diarrheic fecal sample may be used (ideally within minutes of collection, as further delay may decrease assay sensitivity). When possible, a fresh sample can also be directly collected via fecal loop or, optimally, via colonic flush. The sample should be free of cat litter and should not be refrigerated.

Although *T foetus* may be visible on direct fecal smear (**Figure 1**), the sensitivity of this technique is low (14%),² which can result in false negatives. In addition, *T foetus* can microscopically resemble other motile, flagellated GI pathogens such as *Giardia* spp, which can lead

VIDEO OF *T FOETUS* & *GIARDIA* SPP

For a video of *T foetus* and *Giardia* spp motility patterns, visit JodyGookin.com and select the ***T foetus* Resources** tab.



▲ **FIGURE 1** Microscopic image of a single feline *T foetus* organism (100× objective). Characteristic features of *T foetus*—including a dorsal undulating membrane, 3 anterior flagella, and a posterior flagellum—can be observed.

PCR = polymerase chain reaction

to misdiagnosis. However, the motility pattern of *Giardia* spp (ie, falling-leaf-like) is distinct from that of trichomonads (ie, erratic yet forwardly progressive movement; see **Video of *T foetus* & *Giardia* spp**).

PCR testing is considered the gold standard for diagnosing *T foetus* infection, with excellent sensitivity (70%) and specificity (100%),⁸ and is the preferred diagnostic test; however, if PCR testing is cost prohibitive or unavailable, fecal culture using the InPouch TF Feline test (BioMed Diagnostics; biomeddiagnostics.com) can be conducted. This test is less expensive, albeit much less sensitive, than PCR (55%) and not 100% specific⁹; however, it can be performed in-house. No single test has 100% sensitivity; therefore, retesting is recommended with any of these tests if the result is negative yet signalment and clinical signs are strongly suggestive of *T foetus* infection.

Treatment & Prognosis

No available or approved therapeutic completely eradicates *T foetus* infection. Once-daily oral administration of the antiprotozoal ronidazole (30 mg/kg PO q24h for 14 days) is recommended, as twice-daily dosing can increase the risk for neurotoxicity.¹⁰ Neurotoxicity may be reversible; however, if lethargy or neurologic signs develop, the drug should be discontinued immediately and not used again in the patient. Although ronidazole may resolve clinical signs in some cats, many cats may remain subclinically infected or fail to improve clinically.¹⁰ Metronidazole is not effective in clearing infection and is not recommended for treatment of *T foetus* infection.^{11,12}

Cats in high-density housing environments (eg, shelters, catteries, cat shows) have an increased risk for contracting *T foetus* infection.² There is *not*, however, an increased risk for infection in sharing food or water bowls for cats not living in a high-density housing environment.² No disinfection measures have been shown to be effective beyond increasing the number of square feet per animal in facilities housing large numbers of cats.² Long-term outcome for cats with chronic trichomoniasis is good. Clinical signs generally resolve in most cats within 22 to 24 months; however, cats may be subclinical carriers and have periods of relapse of clinical signs during stressful events.¹³ ■

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Suggested Reading

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