

Feline Gastrointestinal *Tritrichomonas foetus* Infection in Korea

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Signalment: A 6-month-old female and male littermate Siamese cats were referred from a local practitioner with a history of chronic diarrhea. In a period of 2 months, the two cats did not respond to the treatment with metronidazole and fenbendazole.

Results: A direct microscopic examination revealed numerous motile trophozoites of trichomonad featuring a pyriform body with undulating membrane and free flagella which were confirmed by the Giemsa staining of fresh rectal samples. The in vitro culture of rectal swap samples in the InPouch™ TF-Feline medium (BioMeD Diagnostics, U.S.A.) was performed. The scanning electron microscopy was also used to visualize these trophozoites. Three anterior flagella and a posterior flagellum extended backward along the undulating membrane were observed by the scanning electron microscope. A single-tube nested PCR test using primer pairs TFITS-F/TFITS-R and TFR-3/TFR-4 and a subsequent sequencing were carried out. The sequence analysis of the 208-bp PCR product revealed a 100% sequence identity with *Tritrichomonas foetus* reported previously from other countries.

Clinical relevance: This is the first report of gastrointestinal *T. foetus* infection in cats from Korea. Further studies are needed to demonstrate an effective chemotherapy against the feline gastrointestinal *T. foetus* infection in Korea.

Key word: feline trichomoniasis, *Tritrichomonas foetus*, diagnosis, Korea

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