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## MOLECULAR CHARACTERIZATION OF *TETRATRICHOMONAS GALLINARUM* IN DOMESTIC TURKEYS (*MELEAGRIS GALLOPAVO*) IN VAN PROVINCE, TURKEY

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### ABSTRACT

*Tetratrichomonas gallinarum* is a protozoan parasite of various galliform birds causing a type of enterohepatitis termed tetratrichomoniasis. During the year 2018-2019 an outbreak of unspecified granulomatous diseases, characterized by the sudden deaths of young turkeys were observed in 18 turkey farms in the Van province of Turkey. Three hundred eighty fecal samples were obtained from the infected farms and 42 tissue samples (liver and caecum) collected from the dead turkeys were examined under light microscope and through molecular characterization. The necropsies of dead turkeys revealed granulomatous necrotic foci in the caecum and liver. A number of 125 (32.89%) fecal samples and all of the 42 (100%) tissue samples were found positive for *T. gallinarum* by molecular characterization. The sequence analysis for both fecal and tissue samples were confirmed with *T. gallinarum* (MH935510) those showed 97.9% similarity on the 'Basic Local Alignment Search Tool'. This is the first molecular characterization report of *T. gallinarum* in Turkey.

**Keywords:** *Tetratrichomonas gallinarum*, Molecular characterization, Turkey