

RESEARCH NOTE

OCCURRENCE AND GENETIC CHARACTERIZATION OF *GRA6* AND *SAG2* FROM *TOXOPLASMA GONDII* OOCYSTS IN CAT FECES, KUNMING, CHINA

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Abstract. *Toxoplasma gondii*-like oocysts were detected in 4% of cat feces using light microscopy in Kunming, China. Amplicon was generated from these oocysts using a *T. gondii*- but not *Hammondia hammondi*-specific primer set. Cat and KM mouse were susceptible to infection by these *T. gondii*-like oocysts. Tissue cysts were found in the brain of the experimentally infected animals and were infective to mouse, indicating that the *T. gondii*-like oocysts isolated from naturally infected cats had a facultative secondary host life cycle. Comparison of *GRA6* and *SAG2* sequences with those of reference strains indicated that the cat-derived *T. gondii* (KM isolate) were typical of *T. gondii* genotype II. This is the first report of isolation, identification, and genotyping of *T. gondii* from feline feces in China. The occurrence of oocyst shedding in the cat population studied was higher than that found in most cat populations world-wide, which strongly implies the need for further studies of population genetic structure of *T. gondii*, as well as for prevention and control of *T. gondii* infection in cats in China.

Keywords: *Toxoplasma gondii*, cat, fecal oocyst, genetic characterization

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