

The occurrence of *Toxocara malaysiensis* in cats in China, confirmed by sequence-based analyses of ribosomal DNA

ABSTRACT

Non-isotopic polymerase chain reaction (PCR)- based single-strand conformation polymorphism and sequence analyses of the second internal transcribed spacer (ITS-2) of nuclear ribosomal DNA (rDNA) were utilized to genetically characterise ascaridoids from dogs and cats from China by comparison with those from other countries. The study showed that *Toxocara canis*, *Toxocara cati*, and *Toxascaris leonina* from China were genetically the same as those from other geographical origins. Specimens from cats from Guangzhou, China, which were morphologically consistent with *Toxocara malaysiensis*, were the same genetically as those from Malaysia, with the exception of a polymorphism in the ITS-2 but no unequivocal sequence difference. This is the first report of *T. malaysiensis* in cats outside of Malaysia (from where it was originally described), supporting the proposal that this species has a broader geographical distribution. The molecular approach employed provides a powerful tool for elucidating the biology, epidemiology, and zoonotic significance of *T. malaysiensis*.