

**FELINE URINARY BLADDER WORM *CAPILLARIA* (SYN. *PEARSONEMA*) IN SRI LANKA**

**T. K. de Silva<sup>1</sup>, S. Wijeratne<sup>2</sup>, P. K. Perera<sup>1</sup>, K. Wijesundera<sup>3</sup>, W. R. Jayaweera<sup>3</sup>,  
V. Perera<sup>2,4</sup> and R. S. Rajakaruna<sup>1\*</sup>**

<sup>1</sup>Department of Zoology, Faculty of Science, University of Peradeniya, Peradeniya, Sri Lanka

<sup>2</sup>"Suwana" Pet Care Animal Hospital, 4th Lane, Nagoda, Kalutara South, Sri Lanka

<sup>3</sup>Department of Veterinary Pathobiology, Faculty of Veterinary Medicine and Animal Science,  
University of Peradeniya, Peradeniya, Sri Lanka

<sup>4</sup>Postgraduate Institute of Science, University of Peradeniya, Peradeniya, Sri Lanka

\*rupika.rajakaruna@sci.pdn.ac.lk

The presence of nematodes in the urinary tract of companion animals, mainly cats and dogs, is considered a rare occurrence. Here, we report a case of urinary bladder capillaries in a cat from Sri Lanka. A three-year-old domestic male cat from the Kalutara District was brought to a private veterinary hospital due to a clinical complaint reporting frequent urination, vomiting, and loss of appetite for one month. The cat's physical examination reported severe emaciation, gasping, abdominal breathing, and retarded growth. Successive to urinary sedimentation, *Capillaria*-type eggs were detected in microscopic analysis. Blood urea nitrogen level (505 mg/dl) and serum creatinine level (7.6 mg/dl) were higher than the normal ranges. Necropsy revealed that the left kidney was enlarged with gross lesions of the oedematous renal parenchyma. Although no adult worms were recovered from the kidneys or bladder, the histopathological examination revealed multifocal areas of tubular degeneration and necrosis with multifocal fibroblast proliferation in the renal cortex, and the lungs showed diffuse pulmonary oedema and chronic interstitial pneumonia. Subsequent DNA extraction, PCR and DNA sequencing from *Capillaria*-type eggs in sedimented urine, an amplicon for *Capillaria* of the 563 bp 18S rRNA (specifically to identify cardiopulmonary and urinary nematodes) was produced. The sequences were subjected to phylogenetic analysis along with reference sequences in the GenBank. The phylogenetic analysis revealed a 100% identity to *Pearsonema* collected from the urinary bladder of a raccoon from Japan. Cases of *Capillaria* in cats are rarely reported because most infected animals do not show clinical signs. Even though eggs of *Capillaria* were reported in Sri Lanka in the mid-1950s in cat faeces, this is the first case study to investigate this species and its infection in the veterinary medical aspects and identify the species using molecular tools.

*Financial assistance from the University of Peradeniya Research Grants (Grant No. URG/2018/39/S) is acknowledged.*

**Keywords:** Feline, Nematode, *Pearsonema*, Sri Lanka, Urinary bladder worm