

## Imported *Thelazia callipeda* infection in german pointer dog in Poland

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**INTRODUCTION.** *Thelazia callipeda* is an spirurid nematode belonging to the Thelazidae family. The definitive host of the parasite are domestic and wild animals, mainly carnivorous but also humans. The intermediate hosts – fruitfly *Phortica variegata* transmit the L3 larvae to the eye while drinking the secretions of lacrimal gland. The number of European countries with confirmed canine and human thelaziosis is increasing constantly. *T. callipeda* infection cause an eye disease with mild or severe clinical signs like conjunctivitis and excessive lacrimation. In this paper, we present the first case of confirmed with microscopic and molecular methods *T. callipeda* infection in dog in Poland.

**MATERIAL AND METHODS.** A 2,5-year-old male German short-haired pointer (26 kg) was presented on February 09, 2019 suffering from mild conjunctivitis of the left eye. During the ophthalmic examination of affected eye, a several transparent nematodes have been noticed under the third eyelid. Eleven nematodes were removed from the eye and placed in 70% solution of ethyl alcohol. Fixed nematodes were delivered to the Department of Parasitology and Vector-Borne Diseases NIPH-NIH in Warsaw for morfological and molecular identification. Two nematodes were mounted in lactophenol and examined by light microscopy (100–400× magnification) and one was used for DNA extraction with commercial kit (Tissue Genomic Extraction Mini Kit, GenoPlast Biochemicals) following manufacturer’s recommendations. Purified DNA was used in PCR amplification of partial 446-bp mitochondrial cytochrome c oxidase subunit 1 (mt-CO1) with primers JB3: 5'-TTTTTTGGGCATCCTGAGGTTTAT-3' and JB4.5: 5'-TAAAGAAA-GAACATAATGAAAATG-3' (Bowles *et al.*, 1993).

**RESULTS.** The PCR products were separated on 2% agarose gel stained with ethidium bromide and visualized on UV transilluminator. Purified from gel PCR products were sequenced and compared with sequences available in the GenBank database, using Basic Local Alignment Search Tool (<http://blast.ncbi.nlm.nih.gov/blast.cgi>). The mt-CO1 sequence from collected nematode was identical to the sequence of *T. callipaeda*.

**CONCLUSIONS.** The increase in tourism intensity is one of the most possible ways of expansion for new parasite species. Presented case and the zoonotic potential of *Thelazia* nematodes demonstrates the need and control of treatment in infected domestic animals, which may become a reservoir for further human infection.