RESUMO SIMPLES - OUTRAS ÁREAS TEMÁTICAS

DIAGNOSIS OF DIOCTOPHYMA RENALE IN A DOG: A CASE REPORT

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Dioctophyma renale is a nematode belonging to the order Enoplida, family Dioctophymatidae, which affects several species of domestic and wild animals. Commonly known as giant kidney worm, it is considered an uncommon disease and often remains subclinical in dogs. The nematode is most commonly found in the right kidney of domestic and wild animals, although it has also been reported in other organs. Infection occurs when the definitive host ingests oligochaetes, fish, or amphibians harboring third-stage larvae, which develop and reproduce in the kidney tissue, with subsequent release of eggs in the urine. Adult worms are cylindrical, bright red, and can reach up to 1 meter in

length. Diagnosis is usually made by abdominal ultrasound, which reveals the presence of adult parasites, and by urine examination, where characteristic eggs can be detected under microscopic examination. Treatment is surgical, involving removal of the affected kidney due to extensive destruction of the renal parenchyma and consequent loss of function. Thus, the present study aims to report a case of dioctophimiasis in a dog treated at the Small Animal Veterinary Hospital of UFRRJ, highlighting both the ultrasound findings and the laboratory detection of parasite eggs in the urine. A 5-year-old male dog, clinically healthy, was presented to the Veterinary Hospital for a routine check-up and underwent an abdominal ultrasound. The left kidney was of normal size (6.68 cm), with smooth contours, slightly increased cortical echogenicity, reduced cortico-medullary distinction, and altered cortico-medullary ratio. The right kidney was enlarged (7.13 × 3.62 cm) and showed complete loss of normal renal architecture, replaced by hyperechoic structures resembling tubular walls with an anechoic central lumen. These structures appeared tubular in longitudinal view and rounded in transverse view, extending approximately 70 cm in length. Subsequently, a urine sample was collected and sent to the Veterinary Clinical Pathology Laboratory for analysis. Microscopic examination revealed numerous yellow-brown elliptical structures with thick shells, consistent with D. renale eggs. After diagnosis, the patient underwent surgical treatment, with a right nephrectomy being performed. Upon opening the renal capsule, two adult parasites were found. This case represents an incidental ultrasound finding and highlights the importance of routine diagnostic evaluations in animals, including urine analysis, which is often underestimated in clinical practice despite its significant diagnostic utility. Urine analysis revealed a large number of D. renale eggs, and although egg elimination does not occur in all cases, this test is essential whenever the disease is suspected.

Palavras-chave: ultrasonography; urinalysis; parasite; diagnosis; dogs.