

**TITLE:** LONG PERIOD OF VIRAL EXCRETION OF CANINE DISTEMPER VIRUS IN URINE OF A NATURALLY INFECTED DOMESTIC DOG

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**ABSTRACT:**

Canine distemper virus (CDV) is a highly contagious pathogen, setting high morbidity and mortality in the susceptible canine population. Aerosols of respiratory, oral and conjunctival secretions fluids can transmit CDV. During the acute and multisystemic phase, high viral excretion may appear in feces, urine or even skin, resulting in an important source of infection. RT-PCR technique has become an important and widely used tool in routine diagnosis, once is a highly sensitive and specific method. The purpose of this study was to report a case of canine distemper presenting a long period of viral excretion in the urine of a naturally infected domestic dog. In November 2016, a four-year-old female dog, undefined breed, neutered, with approximately 6 kg and incomplete vaccination historic against the core antigens (canine distemper virus, canine parvovirus type 2 and infectious canine hepatitis virus) was admitted at the Veterinary Hospital, presenting apathy and appetite loss. Laboratory exams showed only leukopenia ( $5,700$  leukocytes/ $\text{mm}^3$ ) with lymphopenia (11%). The urine sample collected in November 9, 2016, was positive in RT-PCR, with a predicted product of 287 bp. In November 21, 2016, the result of Schirmer's teartest showed dry eyes, besides the blood test, with thrombocytopenia ( $16,000$  platelets/ $\text{mm}^3$ ) and leukopenia ( $4,300$  leukocytes/ $\text{mm}^3$ ) with lymphopenia (22%). In February 7, 2017, three months after the last appointment, the owner reported the complete remission of clinical signs. A second urine collection for RT-PCR was made, confirming however, the continuous CDV excretion. In April 4, 2017, a third collection was made, finally revealing negative results. The present report intend to highlight the convalescent and subclinical animals role, that even without any clinical signs which causes suspicion to the clinic, act as important sources of infection to other susceptible animals.

**Keywords:** canine distemper virus, urine, RT-PCR