





A study on the prevalence of echinococcosis in stray dogs of the Kashmir valley

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Abstract

Echinococcus granulosus is known to cause echinococcosis in dogs and hydatid disease or cystic echinococcosis in ruminant animals and accidentally in humans. Dogs have a crucial role in the transmission of zoonotic parasites in the Kashmir valley, as they frequently come into touch with humans. Cysts developed as a result of this condition are diagnosed using a variety of procedures, including computed tomography, ultrasonography, and magnetic resonance imaging (MRI). The adoption of contemporary immunodiagnostic techniques, on the other hand, has improved the diagnosis of intestinal echinococcosis on a larger scale, allowing epidemiological studies to be conducted on a larger number of people. In the present study, the prevalence of echinococcosis infection in dogs was determined by examining faecal samples collected from different districts of the Kashmir Valley. An immunodiagnostic test, sandwich ELISA, was used for coproantigen detection of *Echinococcus granulosus* infection in dogs. A total of 476 faecal samples were tested, out of which, 48 samples were found to be positive in sandwich ELISA, which were mostly collected from different districts of the Kashmir valley and the collection sites included streets, playgrounds, open fields, parks, etc. of the Kashmir valley.

Keywords: Zoonosis; prevalence; sandwich ELISA; coproantigen

Echinococcosis is a widespread dreadful parasitic disease with high zoonotic potential that has major medical and socio-economic costs for human beings and is also a great threat to livestock productivity (Battelli, 2009; Budke *et al.*, 2006). The highest prevalence of echinococcosis in India has been reported in two states viz. Andhra Pradesh and Tamil Nadu when compared to other parts of the country, (Nepalia *et al.*, 2006).

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