

## EPIDEMIOLOGY AND DIAGNOSIS OF CYSTIC ECHINOCOCCOSIS IN INTERMEDIATES HOST IN THE PROVINCE OF DJELFA, ALGERIA

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### ABSTRACT

The aims of this study was to determine the prevalence of Cystic Echinococcosis (CE) and the comparison between the results of the post mortem and serological diagnosis of this infestation in the intermediates host in the province of Djelfa (ALGERIA). The study was carried out on a total of 192 animals composed of 40 cattle, 96 sheep and 56 goats. Prevalences of 30%, 21.8% and 14.3% were recorded by the post mortem examination, against prevalences of 35%, 36.4%, 19.6% recorded by the ELISA test in cattle, sheep and goats respectively. High significant dependence between the two methods of diagnostic (necropsy examination and ELISA test) was found concerning the prevalence of hydatidosis ( $P < 0.05$ ). A concordance of the results (convergence) between the two diagnostic methods was observed in 81% of the examined cases. However, a discord in the results (divergence) between the two methods was found in 19% of the examined cases. In sheep and goats, the prevalence observed in female was higher than male. However in cattle the prevalence was higher in male (31.2%) compared to female (25%). In all screened animals there was not significant difference between the two sexes ( $P > 0.05$ ). A higher prevalence 73% was recorded in adult infested animals (cattle, sheep and goats) as compared to younger animals 27%. The lungs were the mostly affected organ with the cystic echinococcosis, with a prevalence of 62.5%, 58.3% and 57.1% respectively in goats, cattle and sheep. These results indicate the importance of cystic echinococcosis in slaughtered domestic animals in the province of Djelfa and an ELISA test could be used for immunodiagnosis of this disease for epidemiological studies and surveillance schemes.

**Keywords:** Djelfa, *Echinococcus granulosus*, ELISA, Necropsy, Prevalence.