

## Seroprevalence of *Neosporosis* in goats and farm dogs at the central Zagros region (Iran)

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### Abstract

*Neospora caninum* is a causative agent of abortion, stillbirth, and birth of weak neonates in wild and domestic mammalian species. The purpose of this seroprevalence study was to detect *N. caninum* in goats and farm dogs at the central Zagros region. This high altitude region is a mountainous, semi-humid and cold region with average rainfall. For this purpose, blood samples were obtained from 384 goats and 30 farm dogs and the existence of antibodies against *N. caninum* was determined using the commercial indirect ELISA method. The goats were divided into three age groups: less than one and a half years (54 heads), two to three years (163 heads), and more than three years (167 heads), with positive cases confirmed in 12, 40, and 50 heads, respectively. The seroprevalence of *N. caninum* was determined to be 26.56% which the highest rate was belonged to the age group of more than 3 years compared to other age groups. In the last thirty years, *Neosporosis* has been one of the causes of abortion in ruminants and in the present study, it was found that out of 5 female goats with a history of abortion, 3 had antibodies against *Neospora caninum*. In addition, 43.3 percent of farm dogs carried antibody against *Neospora caninum*, which may explain the role of domestic carnivores in *Neosporosis* epidemiology.

**Key words:** Central Zagros, Goat, Dog, *Neospora caninum*, *Neosporosis*

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