

Abstract

Inadequate rodent control is considered to play a role in *Toxoplasma gondii* infection of pigs. This issue was addressed in the current study by combining a 4 month rodent control campaign and a 7 month longitudinal analysis of *T. gondii* seroprevalence in slaughter pigs. Three organic pig farms with known rodent infestation were included in the study. On these farms, presence of *T. gondii* in trapped rodents was evaluated by real time PCR. All rodent species and shrews investigated had *T. gondii* DNA in brain or heart tissue. Prevalence was 10.3% in *Rattus norvegicus*, 6.5% in *Mus musculus*, 14.3% in *Apodemus sylvaticus* and 13.6% in *Crocidura russula*. Initial *T. gondii* seroprevalence in the slaughter pigs ranged between 8-17% and dropped on the three farms during the rodent control campaign to 0-10% respectively. After four months of rodent control, *T. gondii* infection was absent from pigs from two of the three farms investigated and appeared again in one of those two farms after the rodent control campaign had stopped. This study emphasizes the role of rodents and shrews in the transmission of *T. gondii* to pigs and the importance of rodent control towards production of *T. gondii* free pig meat.