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TITLE

Helminth parasites of domestic and wild canines of North Khorasan Province, northeast Iran with special reference to zoonotic species

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Background: Canines are one of the most important sources of zoonotic parasites throughout the world. This study aimed to determine helminthic parasites of domestic and wild canines in North Khorasan Province with emphasizes on zoonotic species.
Methods: During 2013-2014 the carcasses of 106 canines including jackal, fox, stray dog, and wolf were collected from the study area and after necropsy different tissues examined for infectivity with helminthic parasites.
Results: Overall, 91 canines (85.8%) were infected with at least with one helminthic parasite. The species and percent of infection were as follows:
- Trematoda: *Brachylaima* sp. 0.9%.
- Cestoda: *Mesocestoides lineatus* 61.3%; *Taenia hydatigena* 13.2%; *Dipylidium caninum* 11.3%; *Echinococcus multilocularis* 9.4%; *Echinococcus granulosus* 6.6%; *Taenia endothoracicus* 3.8%; *Taenia taeniaeformis* 2.8%; *Joyeuxiella echinorhyncoides* 1.9%; *Taenia polyacantha* 1.9%; *Taenia multiceps* 0.9%.
- Nematoda: *Trichinella* sp. 31.4%; *Rictularia cahirensis* 20.7%; *Toxascaris leonina* 15.1%; *Trichuris georgicus* 10.4%, *Oxynema numidica* 8.5%; *Spirocerca lupi* 7.7%; *Toxocara canis* 7.5%; *Dirofilaria immitis* 5.2%; *Physaloptera praeputialis* 1.9%; *Gongylonema* sp. 1.3%; *Ancylostoma caninum* 0.9%; *Strongyloid* sp. 0.9%.
- Acanthocephala: *Macracanthorhynchus hirudinaceus* 18.9%; *Oncicola canis* 0.9%.
Conclusion: Among 25 species identified, most of them have public health importance and *Echinococcus* spp. are the most important zoonotic species.

Keywords: Helminth, Canid, Zoonose, Iran