Prevalence of Cryptosporidium parvum in camels in southeast of Iran

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Background: Cryptosporidium was described by Ernest E. T. T. T. T. in 1907. C. parvum is an important coccidian infection of humans, domestic animals and other vertebrates. In young farm animals, especially preweaned dairy calves, it causes severe enteritis resulting in significant morbidity, mortality and economic loss. In humans, it results in an acute infection of the digestive system in immunocompetent individuals, and chronic, life-threatening disease in immunocompromised patients. One of the transmission routes is through infected animals. The most data on the prevalence of cryptosporidial infection in farm animals is restricted to cow, sheep and goats. Limited data is available in other domestic herbivores including camel.

Methods: This investigation was undertaken to determine the prevalence of C. parvum infection in camels (Camelus dromedarius) from Shahre babak, Kerman Province, central part of Iran by modified zeihl-neelesen and capture ELISA, and these two methods compared with each other. A total of 85 freshly passed fecal samples were collected from 48 male and 37 female dromedary camels, examined for C. parvum. Two fecal samples from two male camels had been categorized positive for C. parvum by capture ELISA, and these two methods compared with each other. A total of 85 freshly passed fecal samples were collected from 48 male and 37 female dromedary camels, examined for C. parvum. The presence of C. parvum in feces of camels was compared with each other. A total of 85 freshly passed fecal samples were collected from 48 male and 37 female dromedary camels, examined for C. parvum by capture ELISA and direct sandwich ELISA respectively.

Results: Two fecal samples from two male camels had been diagnosed as positive for C. parvum by ELISA, and two fecal samples from one male and one female had been categorized positive by modified Ziehl-Neelsen technique but negative by ELISA. The oocysts that observed in the modified Ziehl-Neelsen staining were larger than C. parvum and recognized as C. muris or C. andersoni because of size and morphology (5.5–7.5μm). These two species revealed in camels in some previous studies. In this study prevalence of C. parvum infection by capture ELISA was 2.4% and CI: 0%-5.6% calculated for Shahre Babak camels.

Conclusion: Thus, this data indicates and suggest the requirements of applying molecular methods for confirming this species of Cryptosporidium in isolated samples.

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Canine parasites in soil of public recreation areas in Culiacan, Sinaloa, Mexico

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Background: Pets mainly dogs, often zoonotic parasites that can cause significant morbidity in all groups of human population and particularly in vulnerable groups such as children, elderly and immunocompromised interact as open access to public places (such as parks and squares) used as places of recreation and transit, where people and dogs share the space without major constraints and in turn, canine fecal matter is one of the elements through which the parasites are spread by coming into contact with the external environment since the immature stages of some parasites of dogs are eliminated in the feces, contaminating the surrounding soil and to complete the life cycle, eggs should be eaten and the larvae actively penetrate through the skin, making human contact with feces, soil, food, contaminated water, favors the transmission routes fecal-oral and dermal, not only because it is common for them to the extensions, but for his habit of walking barefoot and playing on the floor.

Methods: The representative sample of soil of the public areas, were by the technique of determinant Thrushfield (2005): n = [t * SD / L] 2. Where n = sample size, t = value of the normal distribution (Student t) for a 95% confidence level (t = 1.96), L = accepted or precision errors (5%), and SD = weighted disease Prevalence (%). The total of composite sample of sand was 886, and for the double W collected using the technique, surface moist sand took scraping of 100 grams of sand 'for each sample and deposited it in plastic bags; were transported to the laboratories of the FMVZ unit-UAS, and processed by the sedimentation technique and flotation.

Results: The results indicate that of the 886 sample collected in 224 (25.3%) was observed Ancylostoma spp., Toxocara spp in 115 (13%), Giardia spp. in 71 (8%), and Dipylidium spp. in 53 (6%).

Conclusion: The presence of canine parasites floor public recreation areas indicates the risk to which children are exposed in particular, for what is necessary to implement control strategies and education for prevention of fecal-borne infections (human and animal) in areas public.

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