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Prevalence of internal parasites in camelids (Camelus dromedaries) in Bediat Al- Samawah

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Abstract

Internal parasite infestation is slightly not well studied in camelids in Iraq. Only a few reports of research have been done on *Camelus dromedaries* in Iraq in general and Bediat Al- Samawa in particular in comparison to other livestock such as bovine, caprine, and ovine. Subsequently, this study intends to investigate the prevalence and identification of gastrointestinal parasites in feces samples of dromedary camels (*Camelus dromedaries*) in Bediat Al- Samawa/ Al Muthanna province/ Iraq based on microscopical examination. Seventy-six fresh fecal samples collected from 3 herds at Bediat Al- Samawah near Sawa Lake /Al Muthanna province / Iraq were processed for microscopic examination using concentration by formalin-ether sedimentation and flotation procedure. Moreover, modified Ziehl-Neelsen staining and Lugol staining methods were used to detect *Cryptosporidium spp.* and Giardia cysts, respectively. The microscopical examination approved the presence of various parasitic spp in examined fecal samples. The percentages of gastrointestinal parasites were 52.46% (39 out of 76). The protozoal infections were reported at 19.55% (14 out of 76), while helminth infections were reported at 21.71% (16 out of 76). Mixed infection was also reported in some cases, and the percentage of protozoan and helminths was 8.44% (6 out of 76). This study revealed no correlation between infection and some factors such as the animal's age, nature of feces, and sex of the animals. The results of this study revealed the following genera: protozoa, Nematoda, Cestoda, and Trematoda. The highest percentages of parasitism were occurred by *Strongyloides spp.* and *Eimeria spp.*; however, *Cooperia spp* revealed the lowest percentages of infection. Moreover, *Cryptosporidium spp* was reported in 2.63% (2 out of 76) examined samples. In conclusion, this study approved parasitic gastrointestinal infections in the digestive system of camelids (*Camelus dromedaries*) in Bediat Al- Samawa/ Al Muthanna province/ Iraq. The reported parasites are analogous to parasites fauna reported in other ruminants, expressing an essential challenge to animal farming. The author recommends another future study to be focused on the relationship between the camelid's gastrointestinal parasites and parasites of other farm animals and to understand its epidemiology and their economic influences on public health.

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