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Molecular study of *Cryptosporidium* spp., from rat and mice

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Present study contracts with is a zoonotic intestinal protozoan parasite with public health importance. Research was aimed to determine the prevalence of *Cryptosporidium* in rats/mice and to assess the potential role of rodents as a source for human and animal cryptosporidiosis. A total of 49 faecal samples from field rats, tree rats, house mice and wetland rats were collected from Chittagong, Bangladesh during the period from February to July, 2017. Initial identification of *Cryptosporidium* spp., was carried out on stool samples by Ziehl-Neelsen (Z-N) acid fast staining method and found prevalence of 4.08%. DNA was extracted from Z-N positive and few other suspected samples using commercially available stool DNA isolation kit. Nested PCR was done to amplify 581 bp of 18S rRNA gene with the use of 1% agarose gel electrophoresis for PCR amplified products. *Cryptosporidium* spp., was confirmed in three samples by PCR with prevalence of 6.12%. The results of this research give an idea that rodents may act as reservoirs for zoonotic intestinal protozoan parasites and should be considered important to public health.

Recent Publications:

1. Sotiriadou I, Pantchev N, Gassmann D and Karanis P (2013) Molecular identification of *Giardia* and *Cryptosporidium* from dogs and cats. Parasite 20:1–7.
2. Uehlinger F D, Greenwood S J, McClure J T, Conboy G, O'Handley R and Barkema H W (2013) Zoonotic potential of *Giardia duodenalis* and *Cryptosporidium* spp., and prevalence of intestinal parasites in young dogs from different populations on Prince Edword Island, Canada. Veterinary Parasitology 196(3-4):509-14.
3. Tavalla M, Kord E, Abdizadeh R and Asgarian F (2017) Molecular study of *Cryptosporidium* spp., in dogs from Southwest of Iran. Jundishapur Journal of Microbiology 10(4):e43412.
4. Gil H, Cano L, de Lucio A, Bailo B, de Mingo M H, Cardona G A and Carmena D (2017) Detection and molecular diversity of *Giardia duodenalis* and *Cryptosporidium* spp., in sheltered dogs and cats in Northern Spain. Infection, Genetics and Evolution 50:62-69.
5. La Sala L F, Leiboff A, Burgos J M and Costamagna S R (2015) Spatial distribution of canine zoonotic enteroparasites in Bahia Blanca, Argentina. Revista Argentina de Microbiologia 47(1):17-24.

Biography

Saroj Yadav has expertise in evaluation and passion in improving new research. His open and contextual evaluation model creates new pathways for improving veterinary sector. He has built this model after years of experience in research, evaluation, teaching both in hospital and education institutions. He always tries to form new technique for better veterinary services.

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