Molecular Detection of Cryptosporidium Parvum in Cow's Raw Milk in Isfahan Province, 2013

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Abstract

Background and Objective: Cryptosporidium parvum is a zoonotic protozoan parasite causing diarrheal cryptosporidiosis. Numerous outbreaks of cryptosporidiosis have been reported worldwide. The transmission via milk, water and raw animal products is one of the important ways. The aim of this study was the identification of hsp70 gene in Cryptosporidium parvum in raw cow's milk samples.

Material and Methods: In this cross sectional study, 38 raw cow's milk samples of bulk tank were randomly collected from traditional and semi industrial cattle farms in Isfahan. To identify the protozoa in milk samples, the extracted DNA was evaluated by Nested polymerase chain reaction (PCR).

Results: Based on Nested polymerase chain reaction, 2 samples (5.26%) were infected to Cryptosporidium parvum.

Conclusions: The contamination of milk with Cryptosporidium Parvum is less than that of the other foodstuffs. Thus, it is necessary to reduce food contamination and to have appropriate health education programs.

Keywords: Cryptosporidium Parvum, Milk; Polymerase Chain Reaction