

Molecular Assay of the Contamination of the Vaccinated Livestock Milk from West South of Iran: a Warning Report Against Brucellosis

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Abstract

Brucellosis is among the most prevalent zoonoses caused by Brucella, transmitted to humans through the consumption of milk and dairy products. Currently the Revi (sheep) and IRIBA (cow) vaccines are in use to protect the livestock from Brucella in Iran, while the diagnostic methods include the culturing and serologic methods. In this regard, the molecular polymerase chain reaction (PCR) diagnostic methods are quicker, more precise, and more sensitive than cultures, offering higher specificity than serology in the diagnosis of brucellosis. This research was an attempt at the PCR assay of the contamination of the milk from the livestock in Jahrom County, which had been vaccinated against the Brucella bacterium with the IRIBA and Revi vaccines. This research was a cross-sectional descriptive study carried out on 941 milk samples which were collected using the cluster random sampling technique. The Bioneer PCR Premix, Korea, was used to carry out the PCR. The overall contamination of the milk from the livestock vaccinated against the Brucella bacterium was 19%. The contamination was also 18% and 20% in the livestock vaccinated with the Revi and IRIBA vaccines, respectively. The findings from this research are reflective of the presence of the Brucella species in the milk samples of the vaccinated livestock.

Keywords

Author Keywords: Brucellosis; PCR; Dairy product

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