

عنوان مقاله:

Homologous Expression of an rK39 Analogue from an Iranian Leishmania infantum Isolate in Leishmania Tarentolae for Serodiagnosis of Visceral Leishmaniasis

محل انتشار:

سیزدهمین کنگره بین المللی میکروب شناسی بالینی استاد البرزی (سال: 1398)

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خلاصه مقاله:

Background and Objectives: Kinesin-related gene diversity among strains and species of Leishmania may impact the sensitivity and specificity of serodiagnostic tests for visceral leishmaniasis (VL). Materials and Methods: In this study, we report on the recombinant expression of this novel Iranian L. infantum analogue of rK39 (Li-rK39), in Leishmania tarentolae, which can be considered as a homologous expression system for Leishmania antigens. The diagnostic potential of the Li-rK39 antigen was evaluated in ELISA, using sera from 100 VL patients, 190 healthy endemic controls and 46 non-endemic healthy controls. Results: The results showed a sensitivity of 96% and a specificity of 94.1%. A commercial rK39 immunochromatographic test (ICT) was 90% sensitive and 100% specific on the same cohort. The agreement between the Li-rK39 ELISA and the rK39-ICT was excellent with kappa = 0.87. Conclusion: Here, we showed that the K39 gene from an Iranian L. infantum isolate is heterozygous, compared to the sequence of the Brazilian L. infantum (former L. chagasi), whose antigen is incorporated in most rK39-based immunochromatographic tests. Therefore, Li-rK39 has the potential to be used as an alternative for VL diagnosis in Iran.

کلمات کلیدی:

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