



## Abstract

Leishmaniasis is a vector-borne disease caused by a protozoan of the genus *Leishmania* that is classified into three types: visceral, cutaneous, and mucocutaneous leishmaniasis. It is a widespread problem that affects millions of people worldwide, and due to its high morbidity and mortality; it is considered a public health concern. Currently, chemotherapy is one of the most common treatment methods for leishmaniasis. This approach uses conventional drugs such as amphotericin B, pentavalent antimonials, and paromomycin for treatment. However, this strategy has limitations due to limited available drugs, higher toxicity and side effects, drug resistance, and high treatment costs. Therefore, researchers are exploring other treatment methods such as immunotherapy and cell therapy to replace or combine with chemotherapy. Immunotherapy has several advantages such as limited adverse effects and low cost. Cytokine and chemokine immunotherapy and other approaches are being investigated to control leishmaniasis. It is worth noting that the transmission of diseases can be halted by utilizing available vaccines. In this article, we review the challenges of chemotherapy and innovative treatment methods that could lead to more effective treatment.

**Keywords:** Leishmaniasis, Conventional chemotherapy, Immunotherapy, Cell therapy, Chemoimmunotherapy

## 1385

### Detection of *Trypanosoma evansi* infection in the one humped camel (*Camelus dromedarius*) from Northern of Iran using real time PCR

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## Abstract

Camel trypanosomiasis, or surra, is a serious disease caused by the haemoprotozoan parasite *Trypanosoma evansi*. This parasite is transmitted by biting flies and affects the health and productivity of camels. Surra causes fever, anemia, weight loss, edema, and abortion in infected animals. We used real-time PCR to detect *T. evansi* in 48 blood samples from dromedary camels in four counties of Golestan province, northern Iran. We found that 12.5% of the samples were positive for *T. evansi*, with the highest prevalence in Gonbad-e-Kavoos, Agh-ghala, and Kalaleh counties. No positive sample was found in Gomishan county. Our study shows that surra is prevalent among camels in Golestan province and that real-time PCR is a useful tool for diagnosis and control of this disease.

**Keywords:** *Trypanosoma evansi*, Surra, Camel, Real-time PCR, North of Iran

## 1186

### Survey on toxoplasmosis prevalence in cattle of Kashan's cattle farms using PCR

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