

Evaluation of INF γ , TNF and IL4 mRNA expression levels in *Leishmania infantum* naturally infected dogs during follow up post

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Canine visceral leishmaniasis (CVL) is caused by *Leishmania infantum* in the Mediterranean. Transmission of this severe infection usually occurs through the sandfly bite to the vertebrate host. Dogs are the main reservoir of *Leishmania infantum* parasites.

A real-time PCR assay was exploited for monitoring the immune response of dogs treated with 1) a combination of meglumine antimoniate (100 mg/kg/day, SC) and allopurinol (10 mg/kg/day PO) for 30 days; 2) a combination of meglumine antimoniate (100 mg/kg/day, SC) and allopurinol (10 mg/kg/day PO) for 30 days plus three consecutive injections of vaccine (P vax Po\CPB) at 10-days intervals. After the combined therapy, allopurinol was continued at the same dose until the end of the observation period.

Leishmania DNA load, IFAT, INF- γ and IL4 mRNA expression levels were tested before and after the therapy, every 3 months for a period of 12 months. Analysis of the data indicated an increased INF- γ and TNF mRNA expression levels in blood, and a decreased of *Leishmania* DNA load in lymph node aspirates more significant in dog treated with meglumine antimoniate and allopurinol, plus P vax plasmid (P vax Po\CPB).

Biography

Laura Manna has completed his Ph.D at the age of 28 years. She has published more than 25 papers in reputed journals.