TL-099

Título: Maxadilan: Dissociation between vasodilatation and Leishmania infection enhancing effects.

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Introdução e objetivos: Sand fly saliva has been shown to enhance *Leishmania* infection in mice (*Science 239:1306, 1988*; *Infect Immu 59:1592, 1991*). Such effect is attributed to maxadilan, a polypeptide that also produces vasodilatation and inhibits the killing of *Leishmania* by macrophage *in vitro*. In this study, we tested the ability of maxadilan to increase the susceptibility of CBA mice to *L. major* infection.

Métodos: Groups of 6 and 18 CBA mice were used in two separate experiments. Two different batches of recombinant maxadilan were a kindly supplied by Dr. John David (Harvard Univ., USA). As expected, each batch was able to produce diarrhoea in mice and/or cutaneous hyperaemia in rabbit. Salivary glands were isolated from *L. longipalpis*, and the lysates prepared with these glands produced hyperaemia in rabbit skin. The animals were infected with 10^5 fourth *in vitro* passage, stationary phase, promastigotes of *L. major* in phosphate buffered saline containing 1% bovine serum albumin (PBS-0.1%BSA) alone, or containing half acinus of salivary gland of *L. longipalpis*, or equivalent dose of maxadilan (the dose of maxadilan was adjusted according to its ability to produce cutaneous hyperaemia in rat[illegible]. The animals were followed-up for 9 weeks (first experiment) or 14 weeks (second experiment), with measurements of size of the lesion, parasite burden in the site of infection and in the regional lymph node (as determined by limiting dilution), and parasite dissemination to spleen, liver and lung. The infectivity and virulence of the parasite were tested in a parallel experiment using groups of five BALB/c mice.

Resultados e conclusões: The infection with *L. major* led to a small increase in the thickness of CBA mouse footpad in presence or absence of maxadilan or salivary glands of *L. longipalpis*. No difference was observed in the size of the lesion, parasite burden or dissemination of *L. major* in presence or absence of maxadilan or salivary gland lysate, during 9 or 14 weeks of observation. The data presented herein show that the hyperaemia caused by salivary gland lysate of *L. longipalpis* or maxadilan is not associated with their ability to enhance *Leishmania* infection. They also suggests that the enhancing effect of maxadilan or salivary gland lysate on *Leishmania* infection is not always observed. We are now testing a new batch of *L. longipalpis* glands and a new, synthetic, maxadilan.