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EFFECTS OF A PURIFIED SUBSTANCE FROM *PHYSALIS* SP. IN LEISHMANIA INFECTION. Luana A. Santos, Milena B. P. Soares, Yvone M. Ribeiro, Therezinha Tomassini e Ricardo R. Santos. Laboratório de Imunofarmacologia – Centro de Pesquisas Gonçalo Moniz – FIOCRUZ/BA; *Laboratório de Química de Produtos Naturais - FarManguinhos, FIOCRUZ/RJ

The discovery of new drugs for treatment of leishmaniasis with less toxicity than the conventional pentimonal drugs is of great interest. Extracts from *Physalis* spp. have been widely used in the popular medicine for a variety of pathologies. Using an *in vitro* assay, we have investigated the potential effects of a purified substance from *Physalis* spp, on the viability of promastigotes of *Leishmania amazonensis*. YMRII3 showed potent anti-leishmanial activity, as compared to untreated and to amphoterycin B-treated controls. Similar results were obtained in cultures of promastigotes of *L. major*. To investigate the effects of this substance in amastigote forms, we treated *L. amazonensis* - infected peritoneal macrophages with various doses of YMRII3 lead to a reduction of 100% in the number of infected macrophages and in the number of parasites. Similar results were obtained with *L. amazonensis* infection of J774 macrophage cell line. We next tested the *in vivo* effects of this substance in experimental leishmania infection. Treatment of *L. amazonensis*-infected BALB/c mice with intralesional injections of YMRII3 caused a significant reduction in the lesion size, as compared to control-treated group. Although YMRII3-treated lesions did not completely heal, they remained stable for several weeks, whereas lesions from control group showed progressively increased size and ulceration. New schemes of treatment, as well as possible toxic effects are currently under investigation.