

Tamoxifen might be effective in the treatment of *Leishmania amazonensis* infections

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Researchers from the University of São Paulo, Brazil, have shown the efficacy of an alternative drug against *Leishmania amazonensis*, one of the species that causes cutaneous leishmaniasis in South America.

Details, published June 11th in the open-access journal *PLoS Neglected Tropical Diseases*, explain how tamoxifen – a medication widely used in the treatment and prevention of breast cancer – fights the parasitic disease in experimentally infected mice.

Unicellular parasites of *Leishmania* genus are the causative agents of leishmaniasis. Treatment of leishmaniasis requires the administration of toxic and poorly tolerated drugs. Having previously demonstrated that tamoxifen was active against parasites *in vitro*, the authors now show its efficacy in a rodent model of infection with *L. amazonensis*.

The Brazilian group, led by Silvia Uliana, observed that infected mice treated with 20 mg/kg/day of tamoxifen for 2 weeks showed a significant reduction in parasite burden. Researchers also detected a notable delay in the development of skin ulcers, a typical symptom of the disease caused by *L. amazonensis*.

The promising results presented in this study, coupled with the fact that tamoxifen's safety and pharmacological profiles in humans are well established, point to a new alternative in the treatment of leishmaniasis. Further trials will be necessary in other experimental models of infection

before the drug is tested in humans.

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