LEISHMANICIDAL ACTIVITY OF ETHANOLIC EXTRACTS FROM IBLC105 AND IBLC017 MICROALGAE AGAINST *LEISHMANIA* SPECIES.

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Leishmaniasis is a neglected tropical disease whose etiologic agents are parasites of the genus *Leishmania*, which can manifest in cutaneous, visceral, and mucocutaneous forms. Currently used drugs have limitations regarding administration routes, high costs, and severe side effects. Therefore, there is a demand for new therapeutic options, and, due to their high productivity and biotechnological potential, microalgae are promising sources of new molecules with anti-*Leishmania* activity. The aim of this study was to evaluate the leishmanicidal activity of extracts of the microalgae IBLC105 and IBLC017 against Leishmania species. The microalgae IBLC105 and IBLC017 were cultivated in LC Oligo or Conway medium, to obtain ethanolic extracts, the cultures were centrifuged, lyophilized, extracted with absolute ethanol, and subjected torotary evaporation. The extracts were resuspended in DMSO. To evaluate the activity, promastigotes of *Leishmania amazonensis* (La), *L. brasiliensis* (Lb) and *L. infantum* (Li) were exposed to different concentrations of the extracts for 72h. The viability of the parasites was assessed by direct counting. The IC_{50} values obtained were 109.8 µg/mL (IBLC105) and 144.1 µg/mL (IBLC017) against *L. amazonensis*, 51.3 µg/mL (IBLC105) and 123.0 µg/mL (IBLC017) against *L. brasiliensis*, and 40.3 µg/mL (IBLC105) and 248.1 µg/mL (IBLC017) against *L. infantum*. Cytotoxicity tests with alamarBlue™ were carried out on RAW cells exposed to the extracts. The CC_{50} values were 311.5 µg/mL for IBLC105 and 248.1 µg/mL for IBLC017. The selectivity index (SI), calculated as IC_{50}/CC_{50} ratio, was greater than 4 for all *Leishmania* species. IBLC017 stood out with an SI of 4.02 against *L. amazonensis*, while IBLC105 showed the highest values, with an SI of 7.73 against *L. infantum* and 6.17 against *L. brasiliensis*. In conclusion, the tested extracts showed leishmanicidal activity with promising results and potential for future research.

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