

The triterpenoid fraction from *Trichosanthes dioica* root exhibits in vitro antileishmanial effect against *Leishmania donovani* promastigotes

Sanjib Bhattacharya, Moulisha Biswas, Pallab K. Haldar

Division of Pharmacognosy, Bengal School of Technology (A College of Pharmacy), Hooghly

ABSTRACT

Background *Trichosanthes dioica* Roxb. (Cucurbitaceae), called pointed gourd in English is a dioecious climber found wild throughout the plains of the Indian subcontinent and traditionally used in India for several medicinal purposes. **Objective** The present study was aimed at the evaluation of in vitro antileishmanial effect of triterpenoid fraction from *T. dioica* root (CETD). **Materials and Methods** The antileishmanial activity of CETD was evaluated against *Leishmania donovani* (strain MHOM/IN/83/AG83) promastigotes by in vitro promastigote cell toxicity assay by using MTT (3-(4,5-dimethylthiazol-2-yl)-2,5 diphenyltetrazolium bromide). Potassium antimonyl tartrate was used as reference. **Results** Here, CETD markedly inhibited the growth of *L. donovani* promastigotes in vitro in a concentration dependent manner and demonstrated IC₅₀ value of 18.75 mg/ml. The reference drug potassium antimonyl tartrate exhibited IC₅₀ of 7.52 mg/ml. **Conclusion** From the present study it can be inferred that the triterpenoid fraction of *T. dioica* root exhibited remarkable antileishmanial activity against *Leishmania donovani* promastigotes in vitro.

KEYWORDS

Antileishmanial . cucurbitacins . *Leishmania donovani* . promastigotes . root . *Trichosanthes dioica*

REFERENCES

2026 Phcog.Net - All rights reserved. Published on the JrnIXPress platform.