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Preliminary Evaluation of Immunomodulatory and Antistress Activity of Methanol Extract of Hedychium Spicatum

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Summary

Hedychium spicatum (Zinziberaceae) commonly known as Kapurkachari, is widely recognized in Ayurvedic system of Indian medicine for antiinflammatory and antistress activities. It is also reported to be tonic and stimulant. The methanol extract of rhizomes of *Hedychium spicatum* was evaluated for immunomodulatory activity using *E. coli* induced abdominal sepsis, cyclophosphamide induced myelosuppression, carbon clearance test in mice and forced swim test in rats and anoxia stress tolerance in mice. The extract showed pronounced immunoprophylactic activity in *E. coli* induced abdominal sepsis by increasing the WBC count and % neutrophils. The immunostimulant effect was observed in carbon clearance test by increased Phagocytosis. In cyclophosphamide induced myelosuppression, there was increase in number of WBC in the treatment groups indicating immunostimulant potential of the extract. The extract was found to be effective in forced swim model and anoxia stress tolerance in rats. The extract at dose level 200 and 500 mg/kg was found to be more effective.

Keywords: Cyclophosphamide, Immunoprophylactic, Phagocytosis, Immunoprotective, antistress

Reference:

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