

Immunomodulatory effects of *Potentilla indica* and *Dendrophthoe pentandra* on mice splenocytes and thymocytes

ABSTRACT

Immunomodulators are agents that are able to stimulate or inhibit the immune response. The leaf extracts from *Potentilla indica* and *Dendrophthoe pentandra* were analyzed in vitro for immunomodulatory activity and an MTT colorimetric assay was conducted to determine the proliferation of mice splenocytes and thymocytes. A bromodeoxyuridine assay was performed to analyze DNA synthesis and the Trypan blue exclusion method was conducted to evaluate the changes in total cell population. The results indicated that treatment with *P. indica* and *D. pentandra* produced a time- and dose-dependent increase in cell viability and proliferation. Following 72 h of treatment with *P. indica* and *D. pentandra*, thymocyte proliferation was augmented by 18 and 41%, respectively and splenocyte proliferation increased by 35 and 42%, respectively, when compared with untreated cells. The present study demonstrated that these extracts may act as potential immunostimulants and, thus, represent an alternative source of immunomodulatory compounds for the treatment of human immune-mediated diseases.

Keyword: Bromodeoxyuridine assay; Immunomodulatory; Mistletoe; MTT; Rosaceae; Spleen; Thymus