

Analgesic, antipyretic and antiulcer activities of *Ailanthus altissima* (Mill.) Swingle

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Abstract

Traditionally, medicinal plants have been used in folk medicine throughout the world to treat various diseases, specially pain, fever and gastric ulcer. *A. altissima* is used in traditional medicine for treatment of dysentery, gonorrhoea, haemorrhoids and a remedy for cough, gastric and intestinal upsets. The bark of *A. altissima* is prescribed to treat anaemia, diarrhoea, haemorrhage and spermatorrhea. It is also used as antispasmodic, antiasthmatic, cardiac depressant, astringent and for treatment of epilepsy. The diethyl ether and chloroform extracts of *A. altissima* stem bark of Egyptian origin were evaluated for their analgesic, antipyretic and antiulcer activities. Analgesic and antipyretic activities were evaluated by using hot plate test at doses of 50 mg/kg and 100 mg/kg of the extracts. The extracts have similar analgesic activity and the ether extract showed good analgesic activity at 30 min. Also extracts showed a decrease on rectal temperature that means an hypothermic activity of the plant extracts with longer effect for the ether extract. The extracts at doses of 50 mg/kg and 100 mg/kg proved significant an antiulcerogenic effect related to cytoprotection activity. Phytochemical analysis revealed that the extracts are rich with biologically active chemical constituents, quassinoids (highly oxygenated triterpenes) and alkaloids.

Keywords: *Ailanthus altissima*, stem bark, analgesic, antipyretic, anti-ulcer, quassinoids, alkaloids

Introduction

The practice of herbal medicines dates to the very earliest of known human history. Pain, fever and ulcers are very common complications in human beings. The great variety of plants and their popular use with medical purpose, in special for the low income population, justifies the study of these as potential drugs source. Analgesia is the inability to feel pain while still conscious, fever is the body's natural function to create an environment where infectious agents or damaged tissues can not survive (Chattopadhyay et al. 2005). Normal body