

Bronchodilatory effect of ethanolic extract of the leaves of *Nyctanthes arborescens*

Ramadan B. Sopi, Muhammad Feroz Hayat Khan

Department of Pharmacy-Biology, University of Prishtina, Prishtina, Kosovo

ABSTRACT

Background *Nyctanthes arborescens* has been used in traditional medicine for the treatment of asthma and cough. Aim In this study, bronchodilatory effect of ethanolic extract of the *N. arborescens* was investigated under in vitro conditions. The concentration-response curve of the tracheal smooth muscle (TSM) to histamine was recorded in presence or absence of ethanolic extract and N^ω-nitro-L-arginine methyl ester (L-NAME). Dose-response effect of ethanolic extract on pre-constricted tissues was investigated. The ethanolic extract inhibited the histamine-induced maximum contractile responses of TSM ($P < 0.001$). Ethanolic extract also cause dose-dependent relaxation of TSM. These effects were reversed by L-NAME. Phytochemical analysis showed the presence of typical plant constituents. These results suggest the possible use of extract of the leaves of *N. arborescens* as a bronchodilator in therapeutic treatment of asthma.

KEYWORDS

Asthma . ethanolic extract *Nyctanthes arborescens* . tracheal smooth muscle

REFERENCES

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