

BIOASSAY-DIRECTED ISOLATION OF HYPOTENSIVE ALKALOIDS FROM *HOLARRHENA PUBESCENS*

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Holarrhena pubescens belongs to the family Apocynaceae, commonly known as “kurchi” is highly reputed in traditional medicine as a remedy for amoebic dysentery and other intestinal ailment. When subjected to bioassay-directed fractionation by chromatographic methods, the ethanolic extract of *Holarrhena pubescens* resulted in the isolation of steroidal alkaloids i.e. Holamide and Pubscinine. Holamide showed a three proton doublet at 1.45 (J=6.56 Hz) and two AB doubles at 3.17 and 3.00 each for on proton (J=12.06 Hz) in the ¹H NMR spectrum suggested that it belongs to conanine series of alkaloid (A class of compound with the steroid nucleus and a five members heterocyclic ring with nitrogen). In contrast, pubscinine showed one methyl at 1.28 while the doublet is missing a three proton singlet was observed at 2.28 due to a vinylic methyl indicated a double bond in the 18,20 – epimino ring of the conanine series of alkaloids. In anaesthetized rats, the Holamide and Pubscinine caused a fall in blood pressure in a dose-dependent manner. Pretreatment of animals with atropine completely abolished the hypotensive response of acetylcholine; whereas hypotensive effect of Holamide and Pubscinine were not modified by atropine. Similarly acetylcholine produced contractile effect in guinea-pig ileum, which was antagonized by atropine, however both (Holamide and Pubscinine) failed to produced any stimulant response on guinea-pig ileum. These data indicate that the steroidal alkaloids i.e. holamide and pubscinine from *Holarrhena pubescens* mediated hypotensive response through a mechanism different to that of acetylcholine.

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