บทคัดย่อ การประชุมวิชาการประจำปีครั้งที่ 7 สมาคมเภสัชวิทยาแห่งประเทศไทย

PHARMACOLOGICAL EFFECTS OF SAPONIN FROM RATREE (CESTRUM NOCTURNUM, LINN.) LEAVES IN RATS

Amphawan C.Apisariyakul and Stripun Thanuspong

Department of Pharmacology, Faculty of Medicine, Chiang Mai University, Chiang Mai 50000, Thailand.

The pharmacological effects of Ratree (Cestrum nocturnum Linn.) was studied in both in vivo and in vitro preparations. The extract from the leaves of this indegenous plant initially produced a slight twitch potentiation and followed by the decrease in twitch amplitude in nerve-muscle preparations. This effect was synergized by neuromuscular blocking drugs; but could not be antagonized by physostigmine, TEA and Ca^{++}. The neural PTP was inhibited by this extract. High doses of the extract from this plant were shown to produce marked muscle contraction, followed by muscle weakness, respiratory depression.

The extract of Ratree leaves was fractionated by column chromatography and the phytochemical test was also done. It was found that the fractions produce the same effects as the crude extract. The important active principle producing these effects was saponin. The isolation of saponin from Ratree leaves was performed and tested in comparison of standard saponin. From the pharmacological screening, this saponin was found to produce fasciculation, following by muscle weakness. The action was proposed to be neuromuscular blocking effect similar to succinylcholine. Besides this effect, it could produce hypotension and decreasing in intestinal motility in rats.