Inhibitory effect of Crocus sativus (saffron) on histamine (H1) receptors of guinea pig tracheal chains.

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Source

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Abstract

The inhibitory effects of aqueous-ethanolic extracts of Crocus sativus (Iridaceae), on histamine (H1) receptors was examined on tracheal chains of guinea pigs. The effects of three concentrations of aqueous-ethanolic extract, 10 nM chlorpheniramine, and saline on histamine (H1) receptors were tested on three groups of guinea pig tracheal chains as follows; incubated trachea with: 1) indomethacin, 2) indomethacin, propranolol, and atropine and 3) indomethacin and propranolol. The EC50 (effective concentration of histamine causing 50% of maximum response) obtained in the presence of chlorpheniramine and all concentrations of the extract in all three groups were significantly greater than those of saline (p<0.05 to p<0.001) except low concentration of the extract in groups 1 and 3. The EC50 obtained in the presence of two higher concentrations of extract in group 2 were greater than group 1 and 3 (p<0.05 to p<0.001). Maximum response obtained in the presence of two higher concentrations of extract in group 2 were greater than those of group 1 and group 3 (p<0.001 for all cases). There were parallel right ward shift in concentration response curves obtained in the presence of only low and medium concentrations of the extract in group 2 compared to the those of saline. These results indicated an inhibitory effect of Crocus sativus at histamine H1 receptors.

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