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Antihistaminic Action of Medicinal Plants

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The antihistaminic action of eighteen herbal medicines was investigated by the radioligand binding and functional assays. The hexane fractions of Trichosanthis radix, Mori cortex radicis and Evodiae fructus dose-dependently inhibited [^{3}H]mepyramine binding to H_1 receptor and histamine-induced contraction in guinea-pig brain homogenates and isolated guinea-pig ilea, respectively. Antihistaminic action of the hexane and ethylacetate fractions of Mori cortex radicis and the hexane fraction of Evodiae fructus was more potent than their antimuscarinic action evaluated from the inhibition of [^{3}H]QNB binding and carbachol response. The ethylacetate and chloroform fractions and six known flavonoids from Scutellariae radix also inhibited histamine-induced contraction, but antihistaminic potencies of these fractions and compounds were almost identical with their antimuscarinic potencies. The hexane fractions of Mori cortex radicis and Evodiae fructus, as shown in ketotifen, inhibited selectively the increase of cutaneous vascular permeability induced by histamine. However, wogonin (SC-1) from Scutellariae radix was a nonselective inhibitor for the effect of histamine and serotonin on the vascular permeability. These results demonstrate that the hexane and ethylacetate fractions of Mori cortex radicis and the hexane fraction of Evodiae fructus have the selective histamine H_1 receptor blocking activities.