

Antihypertensive principles from the leaves of Melastoma candidum

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Abstract

Three active principles were isolated from the leaf of *Melastoma candidum* using the screening of hypotensive effects on spontaneously hypertensive rats (SHR).

Intravenous injection of castalagin, procyanidin B-2, or helichryoside into SHR lowered the mean blood pressure in a dose-dependent manner, with helichryoside being the most potent compound. Plasma noradrenaline (NA) levels, both basal in SHR and elevated in normal rats through cold-stress stimulation, were attenuated by these compounds in a way which was not influenced by adrenalectomy. Decrease of NA release from sympathetic nerves was assumed to be responsible. Moreover, the hypertensive effect of various vasoconstrictors in anesthetized rats was reduced by helichryoside. The same results were also observed in castalagin or procyanidin B-2 treated animals. The results indicate that the three principles possess the ability to lower blood pressure through a decrease of sympathetic tone as well as due to direct vasodilatation in SHRs.