THE CENTRAL HYPOTENSIVE EFFECT OF RILMENIDINE. A COMPARATIVE STUDY WITH CLONIDINE.

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ABSTRACT

Hypertension was induced experimentally in rats by DOCA (in a dose of 50mg/kg/week I.M. for 6 weeks) and salt. The effect of a single dose of Rilmenidine (0.5 mg/kg I.P.) and Clonidine (1mg/kg I.P.) on Gamma Amino Butyric Acid (GABA) and Norepinephrine (NE) in Cerebral Cortex (CC), Thalamus—hypothalamus (TH), Midbrain and Pons (MB-P) and Medulla Oblongata (MO) were determined.

Rilmenidine and Clonidine showed reduction in blood pressure.

Hypertensive non treated rats showed significant elevation of NE level in all tested areas, on the other hand, there was significant reduction of GABA concentration in CC, TH, MB-P while significant elevation in MO.

Hypertensive rats treated with rilmenidine showed significant reduction of NE level in MO and significant elevation of GABA concentration in the same brain area. While that treated with clonidine showed significant reduction of NE and elevation of GABA concentrations in all tested areas.

In conclusion: elevated NE level and reduced synaptic GABA level in MO with depletion of GABA stores in other brain areas may