INFLUENCE OF MIANSERIN ON THE ACTIVITY OF SOME HYPOTENSIVE DRUGS IN SPONTANEOUSLY HYPERTENSIVE RATS

Dorota Górska, Dariusz Andrzejczak
Institute of Pharmacology, Medical University of Łódź, Muszyńskiego 1, PL-90-151 Łódź, Poland


Mianserin might be an alternative drug in patients with depression accompanied by hypertension because of its effectiveness and lack of side effects in the circulatory system. However, a few studies reported in literature show influence of the drug on blood pressure. We investigate interactions between mianserin and commonly used hypotensive drugs (propranolol, enalapril and prazosin) in spontaneously hypertensive rats (SHR). The experiments were performed in two experimental designs: a single administration of both mianserin and a hypotensive drug, and repeated administration of mianserin with a single administration of a hypotensive drug. Arterial blood pressure was measured by bloodless method with manometer made by LETICA. A single administration of mianserin caused a statistically significant decrease in systolic, diastolic and mean blood pressure in the 60th minute of observation and intensified hypotensive effect of prazosin. However, long-term administration of mianserin in SHR rats had no significant influence on arterial blood pressure. Chronic and single administration of mianserin with propranolol or enalapril did not influence the circulatory system. A long-term administration of mianserin intensified the hypotensive effect of prazosin. This interaction might suggest possibility of dangerous complications in the treatment of humans with this drug combination.

Key words: mianserin, prazosin, interaction, spontaneously hypertensive rats, hypotensive drugs, blood pressure