EFFECTS OF INDOMETHACIN ON HEMODYNAMIC PARAMETERS AFTER INTRAVENOUS ADMINISTRATION OF PROPRANOLOL AND ENALAPRILAT IN RABBITS

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The aim of the present study was to establish the effect of intravenous administration of indomethacin (10 mg/kg), potent inhibitor of prostaglandin synthesis, on hemodynamic parameters after intravenous administration of propranolol (0.3 mg/kg) and enalaprilat (0.5 mg/kg) in rabbits. The following parameters were estimated: mean arterial blood pressure, heart rate, cardiac output and total peripheral resistance. Blood pressure was measured directly in the carotid artery, heart rate was counted according to ECG, cardiac output and total peripheral resistance were calculated using the method of human \(^{125}\)I albumin dilution. For statistical analysis, the average change in the examined parameters was calculated. Indomethacin significantly increased mean arterial pressure without altering other hemodynamic parameters. Combined intravenous administration of indomethacin with enalaprilat or propranolol abolished hypotensive effect of both drugs. Indomethacin magnified the effect of propranolol on total peripheral resistance and abolished the effect of enalaprilat on this parameter. Co-administration of indomethacin with propranolol or enalaprilat did not influence significantly heart rate and cardiac output in comparison with the effect of both antihypertensive drugs alone. This may indicate the predominant role of the influence of indomethacin on vascular tone in the observed interaction.

**Key words:** indomethacin, propranolol, enalaprilat, interaction, hemodynamic parameters