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Autor(en) des Beitrags:
Baumgartner, C; Bollerhey, M; Ebner, J; Laacke-Singer, L; Schuster, T; Erhardt, W

Titel des Beitrags:
Effects of ketamine-xylazine intravenous bolus injection on cardiovascular function in rabbits.

Abstract:
The direct effects of ketamine-xylazine (KET-XYL) on vascular function have not been investigated in rabbits. The short-term cardiovascular effects of intravenous (IV) KET-XYL bolus injection, therefore, should be investigated using vascular ultrasonography. In this prospective experimental study, KET-XYL anesthesia was induced IV in 9 female New Zealand White rabbits before 3 defined test bolus injections of KET-XYL were given IV. Before and for 10 min after each KET-XYL injection vascular and hemodynamic variables were recorded at the left common carotid artery (ACC) after the 1st injection, and at the abdominal aorta (AA) after the 2nd injection. Echocardiography was performed after the 3rd injection to investigate changes in cardiac parameters. Ketamine-xylazine IV caused a significant increase in vessel diameter at the ACC and AA. Average volumetric flow significantly decreased at the ACC and pulsatility index significantly decreased at the AA. Fractional shortening (FS) and heart rate significantly decreased, while mean arterial blood pressure initially increased. Bolus injections of KET-XYL IV produced a transient vasodilatation at the ACC and AA. Despite central vasodilatation, bradycardia, and decrease of FS and average volumetric flow (VFave), mean arterial blood pressure did not significantly decrease indicating well-preserved cardiovascular compensatory
mechanism after the ratio and doses of KET-XYL IV bolus injections used in this study.