

## **Age-related differences in the response of blood stroke volume to stimulation of the sympathetic ganglion in rats with $\beta$ -adrenoceptor blockade**

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### **Abstract**

Blood stroke volume in rats aging 21 and 56 days decreased during  $\beta$ -adrenoceptor blockade with propranolol, but increased again by the 15th minute after treatment. Suprathreshold stimulation of the stellate ganglion decreased the stroke volume and increased the heart rate in control animals. Electrical stimulation after  $\beta$ -adrenoceptor blockade was followed by a further decrease in stroke volume in young rats. In 100-day-old animals this parameter remained unchanged, while the cardiac output improved. © Springer Science+Business Media, Inc. 2004.

<http://dx.doi.org/10.1007/s10517-005-0038-3>

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### **Keywords**

$\beta$ -adrenoceptors, Ontogeny, Propranolol, Stellate ganglion, Stroke volume