Bulletin of Experimental Biology and Medicine 2007 vol.144 N2, pages 166-170

Parasympathetic cardiac effects in sympathectomized rats

Gizzatullin A., Gilmutdinova R., Minnahmetov R., Sitdikov F., Chiglintcev V. Kazan Federal University, 420008, Kremlevskaya 18, Kazan, Russia

Abstract

In adult sympathectomized rats the right and left vagus nerves exhibited asymmetric effects on heart rate and strength of cardiac contractions. After vagotomy, the heart rate and stroke volume remained high in sympathectomized rats, but returned to normal in intact animals. The sympathetic nervous system plays a role in postvagotomic tachycardia. Sympathectomized rats were characterized by higher reactivity of cardiac β -adrenoceptors to propranolol compared to intact animals. \mathbb{O} Springer Science+Business Media, Inc. 2007.

http://dx.doi.org/10.1007/s10517-007-0280-y

Keywords

Heart, Stimulation, Stroke volume, Sympathectomy, Vagus nerve