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Peculiar Aspects in Influence of α 1-Adrenoceptor Stimulation on Isolated Rat Heart

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Abstract

The study examined the effect of α 1-adrenoceptor stimulation with methoxamine on chronotropic function of isolated heart perfused *ex vivo* according to Langendorff and cardiac chronotropy *in vivo*. Stimulation of α 1-adrenoceptors in isolated heart induced gradually developing bradycardia, which progressed during several minutes. Similar stimulation *in vivo* produced a short-term bradycardia probably terminated by the compensatory influences in the whole organism. Comparison of the data obtained in both experimental paradigms during α 1-adrenoceptor stimulation revealed unidirectional changes in cardiac chronotropy characterized with time-related peculiarities.

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Keywords

chronotropy, heart, methoxamine, rat, α 1-adrenoceptor