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Inotropic effect of dopamine on rat heart during postnatal ontogeny

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Abstract

We studied the effect of dopamine in concentrations of 10^{-9} , 10^{-8} , 10^{-7} , 10^{-6} , and 10^{-5} M on contraction strength of isolated myocardial strips from the right atrium and right ventricle of rats aging 21, 42, 56, and 100 days. Dopamine in a concentration of 10^{-9} M had a positive inotropic effect in rats of various ages. Increasing the concentration of dopamine to 10^{-7} - 10^{-5} M was accompanied by a negative inotropic effect on the heart. © 2013 Springer Science+Business Media New York.

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Keywords

contractility, dopamine, dopamine receptors, myocardium, rat