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Effect of NO Synthase Blockade on NO Production in Rat Heart under Conditions of Hypokinesia

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Abstract

© 2014, Springer Science+Business Media New York. Electron paramagnetic (EPR) spectroscopy study showed that 90-day hypokinesia in rats is accompanied by an increase in NO production in the heart. A nonselective NO synthase inhibitor L-NAME decreased the content of NO in the heart atria and ventricles of hypokinetic rats by 67-70%. A selective inhibitor of inducible NO synthase, aminoguanidine, also decreased the level of NO in the heart atria and ventricles of hypokinetic rats by 60-65%. Our results indicate that the increase in NO production during hypokinesia is associated with activation of NO synthases.

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Keywords

electron paramagnetic resonance, heart, hypokinesia, NO, rat