

Lidocaine reduces the hypoxia-induced release of an excitatory amino acid analog from rat striatal slices in superfusion

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1. Lidocaine has been extensively investigated as a potential neuroprotective drug against ischemia-induced neurodegeneration without reaching any satisfactory conclusion. 2. The present work evaluates the effect of lidocaine 10^{-7} M on the hypoxia-induced release of tritiated D-aspartate from rat striatal slices in superfusion. 3. Hypoxia resulted in a significant increase in the amount of D-aspartate released from striatal slices preloaded with the tritiated excitatory amino acid analog. 4. The addition of lidocaine to the superfusion solution resulted in a drastic reduction in the amount of D-aspartate release evoked by hypoxia, rendering it close to normal values. © 1995.