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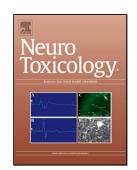
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# ACCEPTED MANUSCRIPT

#### Reversal of cardiac vagal effects of physostigmine by adjunctive muscarinic blockade

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#### **Highlights**

- Heart rate responses to vagus nerve stimulation were augmented by physostigmine.
- Concomitant perfusion of hyoscine reversed the cardiac effects of physostigmine.
- However, low dose hyoscine may augment cardiac parasympathetic control.
- No adverse effects on ventricular function or electrophysiology were observed.

## Abstract (242 words)

Pre-treatment with reversible acetylcholinesterase (AChE) inhibitors is an effective strategy for reducing lethality following organophosphate nerve agent exposure. AChE inhibition may have unwanted cardiac side effects, which could be negated by adjunctive anti-cholinergic therapy. The

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