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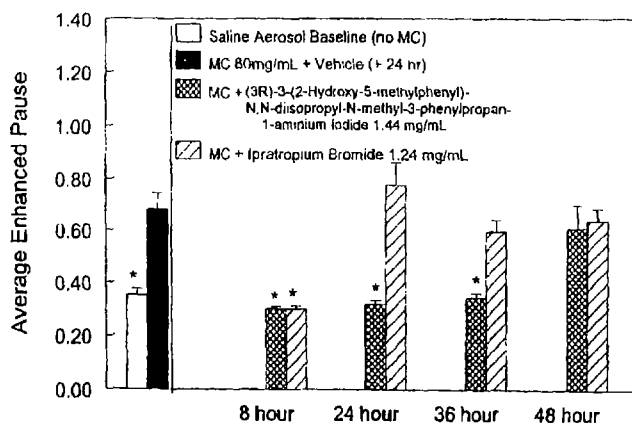
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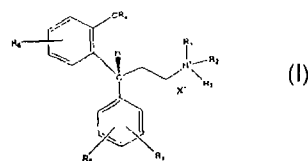
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(54) Title: QUARTERNARY AMMONIUM COMPOUNDS AND THEIR USE AS ANTIMUSCARINIC AGENTS



*: p < 0.05 between Vehicle/MC and all other groups



G00002

(57) Abstract: Novel quaternary ammonium compounds of the formula (I) and any stereoisomers thereof, wherein, R₁, R₂, and R₃ independently represent C₁-C₆ alkyl, optionally substituted with phenyl or hydroxyl, or both, and wherein any two of R₁, R₂ and R₃ may form a ring together with the quaternary ammonium nitrogen; R₄ represents -H, -CH₃, or -CO-R₄₋₁, wherein R₄₋₁ represents -(C₁-C₄ alkyl), -(C₁-C₄ alkoxy), or NR₄₋₂R₄₋₃, wherein R₄₋₂ and R₄₋₃ independently represent -H or -(C₁-C₄ alkyl); R₅, R₆ and R₇ independently represent -H, -OCH₃, -OH, -CONH₂, -SO₂NH₂, -F, -Cl, -Br, -I, -CF₃, or -(C₁-C₄ alkyl), optionally substituted with one or two -OH, -(C₁-C₄ alkoxy), -COOH, or -CO-O-(C₁-C₃ alkyl); and X represents an anion of a pharmaceutically acceptable acid, the compounds for use as medicaments, use of the compounds for the manufacture of specific medicaments, and pharmaceutical compositions comprising the compounds. The present invention also concerns a method of treatment involving administration of the compounds.

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