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The reduction of food intake induced in mice by benzylamine and its derivatives.

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Abstract

Characterisation of the pharmacological profile of non-physiological amine oxidase substrates could help to identify the endogenous role of this class of enzymes. Previous studies have suggested that benzylamine, a common non-physiological substrate for monoamine and tissue-bound or soluble benzylamine oxidases, could behave as a potassium channel blocking agent. Potassium channel blockers are known to modify several forms of animal behaviour including food consumption. To characterise further the pharmacological profile of benzylamine and the role of amine oxidases, we have studied the effect of benzylamine on mice food intake. Our results confirm that benzylamine produces a reduction in mice feeding in a similar manner to that obtained by amphetamine. The anorectic effect of benzylamine and amphetamine in mice was potentiated by pretreatment with amine oxidase inhibitors. In addition, the introduction of substituents in the aromatic ring of benzylamine did not produce compounds with a higher anorectic potency than the one measured with benzylamine.

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