
Communications TO THE EDITOR

Rauwolfia Alkaloids. XXVIII. The Isolation of Raujemidine, An Isomer of Reserpine, from *R. canescens*

Sir:

During the course of a recent reinvestigation of the alkaloids of *R. canescens* we have isolated a new alkaloid which is isomeric with reserpine and which shows both sedative and hypotensive properties in experimental animals. We have named this alkaloid raujemidine.

Raujemidine occurs in the weakly basic fraction of a methanol extract of *R. canescens* roots. Following the removal of most of the reserpine and deserpidine by crystallization, the new alkaloid was isolated by chromatographic methods. It crystallized from methanol as square plates, melting unsharply at 144–150°; $[\alpha]_D^{25} - 88^\circ \pm 1^\circ$ (CHCl₃); $\lambda_{\max}^{\text{EtOH}}$ 216–218 m μ , ϵ 63,200; 268–270 m μ , ϵ 17,200; 292–295 m μ , ϵ 11,200; pK_a' 5.53 (40% methanol).

Anal. Calc'd for C₃₃H₄₀N₂O₉·H₂O: C, 63.24; H, 6.76; N, 4.47; OCH₃ (6), 29.71; Found: C, 63.70; H, 6.45; N, 4.53; OCH₃, 29.71.

In the infrared raujemidine hydrate showed an absorption similar to that of reserpine with the main exception of having a single carbonyl band at 1717 cm.⁻¹ and hydroxyl absorption.

Raujemidine gave a nicely crystalline perchlorate m. p. 253–257°.

Anal. Calc'd for C₃₃H₄₀N₂O₉·HClO₄: C, 55.89; H, 5.82; N, 3.95; OCH₃ (6), 26.26. Found: C, 55.99; H, 5.87; N, 3.89; OCH₃, 26.19.

Treatment of raujemidine with sodium methoxide¹ gave methyl 3,4,5-trimethoxybenzoate, which was converted to 3,4,5-trimethoxybenzoic acid, identified by mixture m. p. and infrared spectrum. The nitrogenous moiety from the methanalysis was non-crystalline, but it showed absorption in the infrared similar to methyl reserpate.

While the exact nature of the isomerism is not clear at this time, we believe that because of marked similarities in chemical and pharmacological properties raujemidine is possibly a stereoisomer of reserpine. Further work relating to the structure of this new alkaloid is in progress.

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