A NEW QUATERNARY ALKALOID FROM *Berberis oblonga*

A. Karimov, M. V. Telezhenetskaya,
K. L. Lutfullin, and S. Yu. Yunusov

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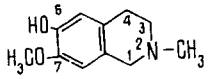
After the isolation of the combined tertiary and quaternary bases [1], we reduced the water-soluble iodides by a published method [2]. The combined alkaloids obtained were separated on a column of silica gel. On elution with a mixture of chloroform and methanol (97:3), a crystalline base (I) was isolated with mp 163-164°C (benzene), $\lambda_{max}^{ethanol}$ 288 nm (log ε 3.57).

The mass spectrum of the base had the peaks M^+ 193, $(M-1)^+$, $(M-15)^+$, and as the main peak $(M-43)^+$, which is characteristic for N-methyltetrahydroisoquinolines [3]. The NMR spectrum of (I) (CD_3OD) showed the signals of methoxy and N-methyl groups (3.75 and 2.36 ppm, respectively), two aromatic protons in the form of singlets in the 6.59 and 6.4 ppm regions, and the signals of three methylene groups in the form of a singlet at 3.41 ppm and of a multiplet at 2.69 ppm.

The methylation of (I) with diazomethane yielded an O-methyl ether with mp 81-82°C (petroleum ether) [4]. On the basis of the facts given above, (I) must be 6-hydroxy-7-methoxy-N-methyl tetrahydroisoquinoline, which agrees with literature information [5]. This compound is present in the plant in the form of a quaternary base — 6-hydroxy-7-methoxy-N-methylisoquinoline, or 6-hydroxy-7-methoxy-N-methyl-3,4-dihydroisoquinoline.



I

Isoquinolines of this type have not previously been isolated from the family Berberidaceae.

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