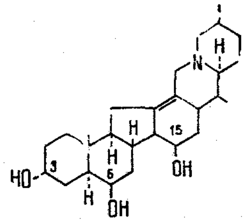
linked [1, 6], and the CSs of the 21-CH_3 and 27-CH_3 groups show that they have the α-equatorial orientation [8].

In the NMR spectrum of (II), the protons geminal to the acetoxy groups resonate in a weaker field. Consequently, the hydroxy group at C_3 has the α-axial orientation and that at C_6 the β-axial orientation [9, 10].

Thus, the facts given permit us to put forward for edpetisidinine the most probable stru-ture and partial configuration of $3\alpha,6\beta,15$-trihydroxycevan-12-ene (I).



I

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UNGVEDINE — A NEW ALKALOID FROM *Ungernia vvedenskyi*

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Continuing a study of the alkaloid composition of various organs of the plant *Ungernia vvedenskyi* S. Khamidh., family Amaryllidaceae [1, 2], we have investigated the flowers with peduncles collected in August 1976 in the Chimkent oblast of KazSSR. Chloroform extraction yielded 0.36% of combined alkaloids, which were separated on a column of silica gel. A benzene–methanol (99:1) eluate yielded a new base (0.024% of the weight of the dry plant) with mp 148-150°C, $[\alpha]_D$ +12.5° (c 0.528; chloroform), with the composition $C_{19}H_{25}NO_5$, which we have called ungvedine (I). The subsequent eluates gave tazettine and lycorine.

The UV spectrum of (I) showed absorption maxima at 206, 235 (inflection) and 295 nm (log ε 4.50, 3.66, 3.62).

The IR spectrum showed absorption bands characteristic for a benzene ring with a methylenedioxy group (1255, 1035, 935 cm^{-1}) [3, 4].

The mass spectrum had the peaks of ions with m/e 70, 71, 104, 115, 159, 181, 201, 229, 231, 247, 260, 298, 316, 332, and M^+ 347, which are characteristic for alkaloids of the tazettine type [5].

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The NMR spectrum ($CDCl_3$) taken on a JNM 4H-100/100 MHz instrument (with HMDS as internal standard, δ scale) showed two one-proton singlets at 7.22 and 6.37 ppm relating to aromatic protons. The protons of a methylenedioxy group appeared in the form of a two-proton singlet at 5.83 ppm, those of methoxy groups in the form of two three-proton singlets at 3.27 and 3.33 ppm, and those of a N-methyl group at 2.29 ppm.

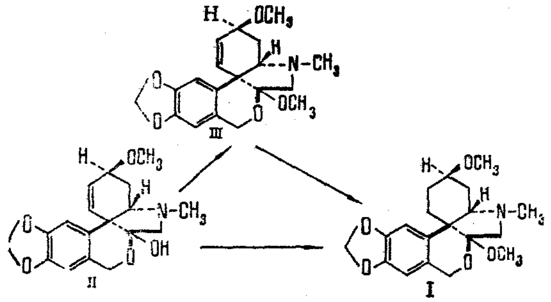
From the spectral characteristics, it may be assumed that base (I) in O-methyldihydrotazettine.

For a definitive confirmation of the structure of compound (I), we methylated tazettine (II) with methyl iodide in the presence of sodium hydride in dimethylformamide. The reaction mixture was filtered and the solvent was driven off in vacuum. The dried residue so obtained was dissolved in water, and the solution was made alkaline and shaken with chloroform. The residue after the solvent had been distilled off was chromatographed on a column of silica gel. The first fractions (benzene—methanol (99:1)) yielded a small amount of a base with the composition $C_{19}H_{25}NO_5$ which proved to be identical with ungvedine (I) (according to TLC, mixed melting point, and mass spectrum). The subsequent eluates yielded a base with the composition $C_{19}H_{23}NO_5$ (III), mp 153-155°C.

The IR spectrum of (III) was very close to that of the alkaloid (I) but differed in the "fingerpint" region.

The NMR spectrum of (III) differed from that of the base (I) by the pr-sence of one-proton doublets from two olefinic protons at 6.1 and 5.6 ppm (J = 9 Hz). On comparing the spectral characteristics obtained with those of tazettine, it may be concluded that base (III) is O-methyltazettine. When (III) was hydrogenated by the Adams method in 10% acetic acid on a platinum catalyst, a substance identical with ungvedine was formed (according to TLC and IR, NMR, and mass spectra).

Thus, structure (I) is suggested for ungvedine.



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