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O-ACETYLDELECTINE – A NEW ALKALOID FROM *Delphinium dictyocarpum*

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Continuing the separation of the combined alkaloids of the epigeal part of *Delphinium dictyocarpum* DC., collected in the flowering phase in the environs of the village of Topolevsky (Dzhungarian Ala-tau) [1-3], we have isolated a new base (I), $C_{33}H_{46}O_9N_2$, mp 118-120°C (methanol), M^+ 614.

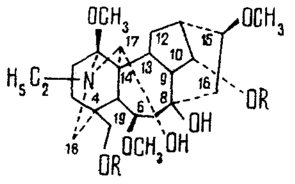
The IR spectrum of (I) shows absorption bands at (cm^{-1}) 3460 (hydroxy groups), 1690, 1740 (carbonyl groups), 1593 (aromatic ring), and 1090 (ether C–O bonds). The NMR spectra has the signals corresponding to a N-ethyl group (three-proton triplet at 1.04 ppm), an acetyl group (three-proton singlet at 2.02 ppm), three methoxy groups (three-proton singlets at 3.18, 3.26, and 3.29 ppm), and four aromatic protons (multiplets at 6.61 and 7.76 ppm). The composition and spectral characteristics permit (I) to be assigned to the diterpene alkaloids with a lycoctonine skeleton.

Identity of the signals of the aromatic protons in the NMR spectrum of (I) with those in the spectrum of delectine (II) and the presence of intense peak of an ion with m/e 120 in the mass spectrum of (I) due to an anthranilic acid residue show that the amino alcohol in (I) is acylated with anthranilic and acetic acids.

In the NMR spectrum of (I) at 4.73 ppm there is a one-proton triplet with $J \approx 5$ Hz. The splitting constant and the chemical shift are characteristic for a β proton at C_{10} geminal to an acetoxy group [4].

According to the mass spectrum (in which the maximum peak is that of the ion M – 31), there is a β-methoxy group at C_1 [5].

On the basis of what has been said, it may be assumed that (I) is 10-O-acetyldelectine. To confirm this, we acetylated (I) with acetic anhydride in pyridine and obtained the monoacetate (III), $C_{35}H_{48}O_{10}N_2$, mp 128-130°C (hexane–ether), which was identical with the N,O-diacetate of delectine. Consequently, the new base that we have isolated has the structure (I):



I. R = anthranoyl $R_1 = COCH_3$
II. R = anthranoyl $R_1 = H$
III. R = acetylanthoranoyl $R_1 = COCH_3$

I

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