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Continuing an investigation of the iridoid glycosides of Armenian species of mullein [1, 2], we have subjected to treatment a species not studied previously, <u>Verbascum cheiranthifolium</u> Boiss, gathered in the flowering phase in the Abovyan region of the Armenian SSR.

Successive chromatography on polyamide and silica gel columns of the water-soluble fraction of a methanolic extract of the plant previously freed from lipophilic substances and flavonoids by a method described previously [1] gave four individual iridoid glycosides: aucubin, catalpol, 6-0-coumaroylaucubin, and a new glycoside (I). Glycoside (I) was amorphous and had the composition $C_{25}H_{30}O_{11}$, $[\alpha]_{546}^{17.5}$ -87.9 ± 1.5° (c 0.33; methanol). $\nu_{\text{max}}^{\text{KBr}}$, cm⁻¹: 3200-3600 (OH); 1700 (C=O); 1650, 1640, 1630 (C=C); 1515 (arom.). $\lambda_{\text{max}}^{\text{CH}_3\text{OH}}$, nm: 207, 223, 314. PMR spectrum (CD₃OD, δ , ppm): 7.70 d (1H, J = 16 Hz, H- β), 7.56 dd (2H, J = 9 and 1 Hz, arom.); 6.96 dd (2H, J = 9 and 1 H, arom.); 6.46 d (1H, J = 16 Hz, H- α); 6.33 dd (1H, J = 7 and 2 Hz, H-3); 5.80 br.s (H-7); 5.12 dd (1H, J = 7 and 4 Hz, H-4); 5.08 m (H-6); 4.96 d (1H, J = 7 Hz, H-1); 4.69 d (1H, J = 7.5 Hz, H-1'); 4.45 br.s (2H-10); 3.90-3.60 m (4H, sugar); 3.82 s (CH₃O); 2.92 m (H-5); 2.70 m (H-9).

The peracetate of glycoside (II) was obtained by the usual method — an amorphous substance. Mass spectrum, m/z (%): 331 (86), 191 (33), 178 (26), 169 (100), 161 (61), 149 (44), 133 (33), 127 (31), 107 (36). PMR spectrum (CDCl₃, δ , ppm): 7.70 d (1H, J = 16 Hz, H- β); 7.50 d (2H, J = 9 and 1 Hz. arom.), 6.92 d (2H, J = 9 and 1 Hz, arom.); 6.35 d (1H, J = 16 Hz, H- α); 6.18 dd (1H, J = 7 and 2 Hz, H-3); 5.92 m (H-7); 5.36-4.8, multiplet group (7H); 4.88 br.s (2H-10); 4.38-4.07 m (2H-6'); 3.83 s (OCH₃); 3.72 m (H-5'); 3.25 m (H-5); 2.84 m (H-9); 2.08-2.0 (15H, 5CH₃CO).

The alkaline hydrolysis of glycoside (I) by the method of [1] led to aucubin and p-methoxy-trans-cinnamic acid.

The downfield shift of the signals of protons at C-10 in the spectrum of the pentacetate (II) and the presence in the mass spectrum of the latter of the peaks of ions with m/z 331 (tetraacetylglucosyl fragment) and 191 (characteristic C-10-O-acetylbisdeoxyaucubin fragment a) permitted the assumption for glycoside (I) of the structure of 6-O-(p-methoxycinnamoyl)-aucubin.

LITERATURE CITED

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