FLAVONOIDS OF Veronica officinalis

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We have investigated the herbage of Veronica officinalis L. (drug speedwell), family Scrophulariaceae Lindl., collected in the flowering period in the pine woods of Predural'ya (Kungursko-Krasnoufinsk forest–steppe).

From a methanolic extract of drug speedwell, by adsorption chromatography on polyamide we isolated two individual substances. The first of them had mp 256-258°C (from ethanol). The results of qualitative reactions (Bryant's test) and the color of the spots on the chromatograms showed the glycosidic and flavonoid nature of the substance.

The UV spectrum [λ_{max} 350, 258 (268) nm] and the spectra of the substance with additions of ionizing and complex-forming reagents were identical with those of cynaroside [1].

Acid hydrolysis with 10% sulfuric acid gave an aglycone with mp 328-330°C and D-glucose, identified by paper chromatography. The acetyl derivative of the aglycone had mp 228-230°C, which corresponds to an acetyl derivative of luteolin [3].

The flavonoid under investigation was hydrolyzed by an enzyme preparation from Aspergillus orizae, which shows the β configuration of the glycosidic bond.

On the basis of the bathochromic shifts in the UV region with ionizing and complex-forming reagents [1, 2, 4], a chromatographic comparison in several systems of solvents, and the absence of a depression of the melting point in admixture with an authentic sample, the glycoside isolated and its aglycone were identified as cynaroside (luteolin 7-O-β-D-glucoside) and luteolin (3',4',5,7-tetrahydroxyflavone), respectively.

The second substance was identified by chemical, physical, and spectral investigations as luteolin [2, 4].

LITERATURE CITED

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