

We chromatographed the combined glycosides from an ethanolic-chloroform extract of the leaves of *Digitalis ciliata* Trautv. [1] on a column of Sephadex G-75. The column was eluted successively with petroleum ether, petroleum ether-chloroform, ethyl acetate, and ethyl acetate-ethanol.

The ethyl acetate eluates contained three glycosides, which were separated preparatively on a paper chromatogram in the tetrahydrofuran-chloroform-formamide (5:50:6.5) system [2]. Two individual glycosides were obtained which, after recrystallization from ethanol, formed white acicular crystals. They gave the Legal, Raymond, Kedde, and Keller-Kiliani reactions. In both cases, the reaction for an acetyl group was positive [3].

One of the glycosides, with mp 240-242°C, after treatment with the Svendsen-Jensen reagent fluoresced steel blue in UV light. With conc. H₂SO₄ it gave a coloration changing with time: 0 min - dark brown; 60 min - dark violet; 120 min - violet; 180 min - gray-violet.

Careful saponification with alkali yielded desacetyllanatoside C. The acid hydrolysis of the latter gave the aglycone (digoxigenin) and sugars (digilanidobiose and digitoxose). Enzymatic hydrolysis with the enzyme of the grape snail yielded a secondary glycoside in the form of white acicular crystals with mp 232°C, which were characterized as digoxin. Glucose was found in the sugar fraction of the enzymatic hydrolysate.

On paper chromatography in various systems of solvents the glycoside appeared at the level of an authentic sample of lanatoside C. No depression of the melting point of a mixture was observed.

The IR spectra of the substance coincided completely with that of lanatoside C described in the literature [4]. Consequently, the substance under investigation was the genuine glycoside of foxglove - lanatoside C [5].

The second, more polar, glycoside melted at 229-230°C. In the Svendsen-Jensen reaction, in UV light it fluoresced bright blue. With conc. H₂SO₄ it formed a coloration changing with time: 0 min - brown-green; 60 min - dark blue; 120 min - dark violet. Under the action of ammonia it saponified, giving a substance which appeared on a paper chromatogram in the region of desacetyllanatoside B. The acid hydrolysate was found to contain ditoxigenin, digilanidobiose, and digitoxose. It was cleaved by the enzyme of the grape snail with the formation of gitoxin and glucose.

On a paper chromatogram the glycoside had the same mobility as an authentic sample of lanatoside B. A mixture gave no depression of the melting point. Its IR spectrum was identical with that of lanatoside B [4].

Thus, the second individual glycoside isolated from the leaves of *D. ciliata* is lanatoside B [5].

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