

In 1967, studying the epigeal part of *Paracynoglossum imeretinum* (Kusn). M. Pop., collected in 1965 in the region of the village of Bakhmaro, we determined the content of alkaloids in it (0.16%) gravimetrically [1]. By chromatography in a thin layer of alumina in the chloroform-methanol (9:1) system, we have found five alkaloids, with R_f 0.78, 0.67, 0.44, 0.36, and 0.05. Under the conditions of our experiment the R_f value of echinatine is 0.36.

In a study of the epigeal part of the plant collected in 1970 in the region of the town of Kobuleti, we established by the same method that it contained 0.34% of alkaloids, while the roots contained 0.04% (calculated on the absolutely dry plant material). By the TLC method in the epigeal part we found four alkaloids with R_f 0.64, 0.43, 0.18, and 0.08.

From 1650 g of the epigeal part collected in 1970, dichloroethane extraction gave 5.44 g of combined alkaloids forming a light brown vitreous noncrystallizing mass with pH 9.

These alkaloids were separated on a column (d 2.5 cm) containing alkaline alumina (Brockmann activity grade III [2]). They were eluted with chloroform-methanol systems, the ratio of the solvents being changed successively. Fractions of 5 ml each were collected and analyzed by the TLC method. In this way, four individual bases were obtained. From 0.8485 g of alkaloid A with R_f 0.80 a picrate with mp 98-100°C (from ethanol) was isolated. This shows that the alkaloid is heliosupine [1, 3, 4].

A picrolonate was obtained from 1.7249 g of alkaloid B with R_f 0.52. This was shown to be identical by a mixed melting point and IR spectra with the picrolonate of echinatine.

The alkaloids with R_f 0.11 and 0.06 could not be crystallized. However, the low R_f 0.80 in the chloroform-methanol (9:1) system and 0.73 in the benzene-ether-methanol (10:5:2) system was isolated, these R_f values coinciding with those of heliosupine in the same systems. After the reduction of alkaloid D, having R_f 0.06, a substance was isolated the R_f values of which coincided with those of echinatine in the same systems.

Thus, we have shown that *Paracynoglossum imeretinum* contains the alkaloids heliosupine, echinatine, and their N-oxides.

LITERATURE CITED

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