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ALKALOIDS OF *Aconitum orientale*

L. V. Beshitaishvili and M. N. Sultankhodzhaev

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The perennial herbaceous plant *Aconitum orientale* Mill., family Ranunculaceae, is widely distributed in the mountain regions of Georgia [1]. The alkaloids lappaconitine, avadharidine, and avadharine have previously been isolated from its roots. The last-mentioned alkaloid was characterized by its physical constants and empirical formula [2].

We have investigated the epigeal part of this plant collected in the environs of Bakuriani (GSSR) in the flowering period. Ordinary chloroform extraction yielded 0.53% of total alkaloids on the weight of the air-dry raw material. The total alkaloids were separated into ether and chloroform fractions. The ether fraction was chromatographed on a column of alumina (1:70). On elution with benzene and with benzene-methanol, six bases (I-VI) were isolated: (I) - $C_{32}H_{44}N_2O_8$, mp 215-218°C; (II) - $C_{30}H_{42}N_2O_7$, mp 212-214°; (III) - $C_{32}H_{44}N_2O_9$, mp 131-133°; (IV) $C_{24}H_{39}NO_7$, mp 167-169°; (V) $C_{23}H_{37}NO_5$, mp 135-137°; (VI) $C_{25}H_{41}NO_7$, mp 128-130°.

Alkaloids (I)-(VI) were identified on the basis of their spectral characteristics and comparison with authentic samples as lappaconitine, N-deacetylappaconitine [3], gigactonine [4], cammaconine [5], and lycoctonine.

From the results of a comparison physicochemical constants and spectral characteristics with those given in the literature, alkaloid (III) was identified as ranaconitine [6].

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I. G. Kutateladze Institute of Pharmacochimistry, Georgian SSR Academy of Sciences, Tbilisi. Institute of the Chemistry of Plant Substances, Uzbek SSR Academy of Sciences, Tashkent. Translated from *Khimiya Prirodnikh Soedinenii*, No. 3, pp. 435-436, May-June, 1989. Original article submitted October 4, 1988.