ALKALOIDS OF Corydalis gigantea

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We have studied Corydalis gigantea Trautv. et Mey., family Papaveraceae [1], growing in the Far East. The plants were collected in the Krasnoarmeiskii region in the phase of mass vegetation. An evaporated methanolic extract of 17 kg of the herbage was treated with 5% sulfuric acid, the acid solution was made alkaline with 25% ammonia, and the bases were extracted with chloroform. The combined alkaloids (46.3 g) were separated by the usual method into fractions of phenolic (2.2 g) and nonphenolic (9 g) benzene-soluble bases and a benzene-insoluble fraction (35 g). The fraction of phenolic bases, on chromatography on a column of silica gel with elution by benzene-ethyl acetate (7:3) yielded 0.37 g of 1-scoulerine, and elution with ethyl acetate gave 0.55 g of 1-cheilanthifoline [2].

Crystallization of the benzene-soluble nonphenolic bases yielded 0.64 g of L-adlumine and 1.24 g of protopine. By chromatography on a column of silica gel, the mother solutions yielded 0.13 g of sanguinarine, 0.09 g of dihydrosanguinarine, 1.17 g of d-bicuculline, and 0.14 g of l-adlumidine [3]. The structures of the other bases isolated are being studied.

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