

THE IDENTIFICATION OF THE MAJOR ALKALOID OF *STRYCHNOS LEDERMANNII* AS DIABOLINE

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[Manuscript received April 2, 1971]

The leaf and stem alkaloids from *Strychnos ledermannii* Gilg. & Bened., a forest liana of New Guinea, have been isolated in 0.21% yield, and the major alkaloid has been identified as diaboline. Diaboline has previously been isolated from *Strychnos diabolii*,¹ *Strychnos henningsii*,² and *Strychnos castelneana*.³

Experimental

Leaves and stems of *S. ledermannii* (Herbarium voucher specimen, TGH 11492) were collected near Kuali Creek, about 5 miles west of Wau in the Morobe District, Territory of New Guinea. Extraction of the dried material (1020 g) by the method previously described⁴ gave the crude, tertiary alkaloids (2.4 g, 0.21%). Examination of the crude alkaloids by thin-layer chromatography (Kieselgel G plates developed in chloroform-methanol (9 : 1) and spots visualized by exposure to iodine vapour) showed a strong spot (R_F 0.16) with relatively faint spots at R_F 0.04, 0.19, and 0.28. The crude alkaloids (120 mg) were chromatographed on neutral alumina (12 g). A number of small fractions were eluted by mixtures of benzene and ethyl acetate, and the main series of fractions by ethyl acetate-chloroform (7 : 3). The eluted material was dissolved in water containing a few drops of hydrochloric acid, the solution evaporated to dryness, and the residue crystallized from a small volume of water. The crystalline hydrochloride, $[\alpha]_D +112^\circ$ (c, 0.09 in H_2O), melted with decomposition from c. 245° and showed no m.p. depression on admixture with authentic diaboline hydrochloride of the same m.p. The i.r., n.m.r., and mass spectra of the free base were identical with those of diaboline.

Acknowledgments

The authors are indebted to Dr G. A. R. Johnston for a reference sample of diaboline hydrochloride, and to Dr T. G. Hartley for the collection and identification of *Strychnos ledermannii*.

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