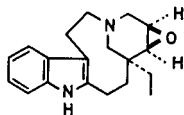


The isolation and identification of conoflorin from *Tabernaemontana chippii* Stapf. H. Huber

STR.—We have isolated and identified an alkaloid from *T. chippii* (family Apocynaceae). The plant was collected from the Bibani district of Ashanti, Ghana, the leaves dried below 50° and the alkaloid extracted by percolation with ethanol. The extract was reduced to a small volume under reduced pressure and acidified with glacial acetic acid. The acid solution was then poured slowly into a large volume of very dilute acetic acid with vigorous stirring. The aqueous acidic layer was separated from the tars and the total bases precipitated by addition of ammonia in the presence of ice. Thin-layer and paper chromatography using a number of different solvent systems indicated that only one alkaloid was present. The pure alkaloid was obtained by chromatography on alumina using chloroform as eluant; recrystallization from ethanol (80%) gave colourless needles, m.p. 168–169°, $[\alpha]_D^{20} = +24^\circ$ (in chloroform). Elemental analysis gave an empirical formula $C_{19}H_{24}N_2O$ which was confirmed and shown to be the molecular formula by mass spectrometry. The ultraviolet spectrum in absolute ethanol gave typical indolic-type absorption at λ_{max} 230 $m\mu$ ($\epsilon = 34,000$), λ_{max} 285 $m\mu$ ($\epsilon = 9,300$) and λ_{max} 293 $m\mu$ ($\epsilon = 7,120$) and the infrared spectrum in Nujol showed a strong band at 3,340 cm^{-1} (indolic N–H stretching) but no bands indicating the presence of O–H or C=O groups, which suggests that the oxygen atom is present in an ether linkage. The mass spectrum of the alkaloid indicated a molecular ion at m/e 296, a base peak at m/e 140 and other significant peaks at m/e 267, 249, 211, 157, 156, 144 and 143.

The above data are in good agreement with those reported for the alkaloid conoflorin (I) whose isolation from *Conopharyngia longiflora* (Stapf.) and



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structural elucidation has recently been reported by Dugan, Hesse & others (1967). The proton magnetic resonance spectrum of conoflorin was subsequently found to be identical with that of the above alkaloid, therefore confirming its identity with conoflorin.

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