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SPECIALIA

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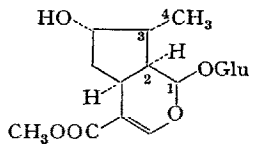
Loganin from *Mytragyna parvifolia* Korth.

The importance of cyclopentane monoterpene skeleton in the biosynthesis of indole alkaloids has recently been emphasized[1], and loganin[2] (I) has been shown to be the precursor of these alkaloids by feeding (*o*-methyl (^{3}H))[3], (2-^{14}C)[4] and (4-^{14}C) loganins[5].



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In the present communication we wish to report the isolation of loganin from the leaves of *Mytragyna parvifolia* Korth. (family Rubiaceae) which actively synthesize corynanthe[6] type of indole alkaloids and thus provide support, albeit circumstantial, for the intermediacy of loganin in the biosynthesis of indole alkaloids.

The polar non-alkaloidal fraction from 11 kg fresh leaves of *M. parvifolia* Korth. was separated by a combination of countercurrent distribution (100 transfers; solvent system; *n*-butanol-water) and column chromatography on silica gel (elution with ethyl acetate-ethanol mixtures) to give 300 mg loganin which was crystallized successively from absolute ethanol and methanol, m.p. and mixed m.p. with authentic sample, 221–222°. The identity was further confirmed by TLC, rotation, UV, IR, NMR and mass spectra[7] as well as by preparation of the penta-acetate, m.p. 140–141°.

This appears to be the first report of the isolation of loganin from a plant belonging to the Rubiaceae family, and thus indicates its close relationship with the plants of the Loganiaceae[8] family[9].

Zusammenfassung. Loganin, ein potentielles Schlüsselzwischenprodukt in der Biosynthese von Indolalkaloiden, wurde aus den Blättern von *Mytragyna parvifolia* Korth. isoliert.

D. S. Bhakuni and R. S. Kapil

Central Drug Research Institute, Lucknow (India), 24 July 1968.

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7 We thank Prof. A. R. Battersby for valuable suggestions and mass spectral data.

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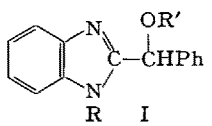
9 Contribution No. 1291

The Inhibiting Actions on Poliovirus Multiplication of 1-Alkyl-2-(α-methoxybenzyl)benzimidazoles

2-(α-Hydroxybenzyl)benzimidazole (HBB: I; R=R'=H) and 2-(α-methoxybenzyl)benzimidazole (MBB: I; R=H, R' = Me), when tested simultaneously at half their respective maximum tolerated concentrations (MTC's)[1], exert broadly similar protective actions towards ERK cells infected with poliovirus[2]. Possession of similar activity by compounds with different solubility characteristics could be of practical value and it is noteworthy that the α-hydroxy group itself is not essential for marked activity in this series.

The protective actions of 1-alkyl derivatives of HBB (I; R=alkyl, R' = H) against the cytopathic effects of



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