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PYRANOCOUMARINS FROM PARAMIGNYA MONOPHYLLA (RUTACEAE) ROOT BARK

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The dichloromethane extract of Paramignya monophylla root bark contained four coumarins. Two of them were identified as the 1,1-dimethylallyl-pyranocoumarin, nordentatin and its methyl ether, dentatin, previously isolated from Clausena dentata (Govindachari et al., 1988). Although

the structure of these coumarins were formulated as angular pyranocoumarins, they have since been shown to be linear pyranocoumarins (Mowat and Murray, 1973; Tomimatsu et al., 1974).

The other two coumarins were found to be related, one being a coumarinol and the other, its methyl ether. They too were found to be 1,1-dialklallylpyranocoumarins related to dentatin. A structure in which one of the methyl groups in the 1,1-dimethylallyl side-chain in nordentatin and dentatin have been replaced by an isopentenyl group is proposed for the coumarinol and the methyl ether respectively.

References:

Govindachari, T.R., Pai, B.R., Subramaniam, P.S. and Muthukumaraswamy, N. (1968) Tetrahedron, 24: 753

Mowat, D. and Murray, R.D.H. (1973) Tetrahedron, 29: 2943

Tomimatsu, T., Hasegawa, H. and Tori, K. (1974) Tetrahedron, 30: 939

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