

GLUCOINDOLE ALKALOIDS FROM STEM BARK OF *STRYCHNOS MELLODORA*

V. BRANDT, M. TITS and L. ANGENOT

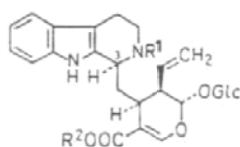
Institut de Pharmacie, Université de Liège, rue Fusch, 5, B-4000 Liège, Belgium

Strychnos meliodora S. Moore is an African species growing in montane rain forests (800-1200 m) of East Africa (Tanzania, Zimbabwe, Moçambique) [1]. There is no report on either phytochemical or pharmacological work on this plant.

Stem bark has been screened for alkaloids. This showed the presence of a main alkaloid which was compared with dolichantoside as a reference compound and was identical in all respects (UV, MS, IR, CD, diode-array HPLC and co-TLC) [2]. Two other alkaloids having similar UV spectra to that of dolichantoside were separated by MPLC and monitored by TLC. One of these compounds was identified as strictosidine (2) by comparison (UV, MS, IR, CD, diode-array HPLC, co-TLC) with an authentic sample and literature data [3,5]. The other compound was identified as palicoside (3) by means of UV, CD, IR, mass, ^{13}C - and ^1H - NMR spectra [4].

As the absolute configuration of dolichantoside 3- α (S) established in our laboratory by C. Coune *et al.* [2] has been criticized by Arbain [6], we confirmed the absolute configuration of C-3 of these three glucoalkaloids by comparison of their CD spectra with that of strictosidine obtained by stereospecific condensation of tryptamine and secologanin, catalysed by strictosidine synthase [5]. Their CD curve clearly show similarities between 200 and 300 nm. Moreover, isodolichantoside (H 3- β (R)) recently isolated by Achenbach *et al.* [7] displayed an inverse CD curve.

This is the first time that these three glucoalkaloids have been found together in the same plant. It is well known that strictosidine is involved in the biogenesis of many indole alkaloids [5,8]. On the other hand dolichantoside is possibly implicated in the biogenesis of akagerine derivatives [8]. Biotechnological experiments can be now carried out to confirm this hypothesis and to evaluate the potential biosynthetic pathway from palicoside.



	R ¹	R ²
1	CH ₃	CH ₃
2	H	CH ₃
3	CH ₃	H

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