

PALLIDINE AND APORPHINOID ALKALOIDS FROM *ROLLINIA MUCOSA*¹

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As part of a collaborative program to study the phytochemistry and biological activity of Brazilian Annonaceae, an alkaloid extract of *Rollinia mucosa* Baill. was found to exhibit antimicrobial activity against gram-positive and gram-negative bacteria and antifungal activity against *Candida tropicalis*². We now report the isolation and identification of two known oxoaporphines, liriodenine and lanuginosine, two known aporphines, anonaine and *N*-formylanonaine, and a morphinanedienone alkaloid, pallidine. Liriodenine and lanuginosine had already been isolated (1) from a Peruvian species of the same genus (*Rollinia papilionella* Diels), and liriodenine and the structurally similar homomoschatoline and atherospermidine had also been isolated from the Brazilian species *Rollinia sericea* Fries (2). This is apparently the first report of anonaine, *N*-formylanonaine, and pallidine from a *Rollinia* species.

EXPERIMENTAL

PLANT.—Bark of *R. mucosa* was collected in the vicinity of Belém, Pará State, Brazil, in August 1983, and identified by Dr. Elizabeth van den Bergh, Museu Paraense Emilio Goeldi (CNPq-Brazil) (voucher No. 29).

EXTRACTION AND ISOLATION.—Dried bark (7 kg) of *R. mucosa* was extracted with 95% EtOH (Soxhlet), and the resulting extract was worked up by standard procedures for the isolation of alkaloids (3) (0.18% with respect to the dried material). These were separated in several chromatographic steps and identified by their spectral data (4-6) and direct comparison with authentic samples: (tlc, mp, mmp, ir, uv, ¹H nmr, ms).³

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LITERATURE CITED

1. T. Dabrah, and A. Sneden, *J. Nat. Prod.*, **46**, 436 (1983).
2. R. Brash, and A. Sneden, *J. Nat. Prod.*, **46**, 437 (1983).
3. D. Cortes, A. Ramahatra, A. Cavé, J. de Carvalho Bayma, and H. Dadoun, *J. Nat. Prod.*, **48**, 254 (1985).
4. H. Guinaudeau, M. Leboeuf, and A. Cavé, *Lloydia*, **38**, 275 (1975).
5. M. Shamma, and L. Castenson, in "The Alkaloids," vol. 14, Ed. by R.H. Manske, Academic Press, New York, 1973, p. 233.
6. H. Guinaudeau, M. Leboeuf, and A. Cavé, *J. Nat. Prod.*, **46**, 761 (1983).

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²L. M. Campos, E. A. Nunan, L. C. Caetano, H. Dadoun, unpublished data.

³Full details of the isolation and identification of the compounds are available on request to the senior author.