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DIACETYLNERIIFOLIN FROM *CERBERA ODOLLAM*

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Key Word Index—*Cerbera odollam*; Apocynaceae; diacetylneriifolin.

Plant and source. Seed kernels of *Cerbera odollam* Gaertn. which grow wild in salt swamps or on the sea coast, particularly in Kerala State, South India. **Previous work.** Cardiac glycosides: cerebroside (thevetin B) [1–3], acetyl-thevetin B [4], cerberin [2,5], neriifolin [2]. **Uses.** Medicinal, Cardiac poison.

Present work. Fresh seed kernels were ground, extracted with 90% EtOH and the extract concentrated. During concentration, a crystalline solid separated which, on chromatography over Si gel, gave a fraction in CHCl₃-MeOH (49:1) mainly consisting of cerberin (2'-monoacetylneriifolin) and a faster moving compound. The fraction was rechromatographed on Si gel when the CHCl₃-MeOH (99:1) eluate gave the faster moving compound in pure form, crystallised from MeOH-Et₂O. It was identified as diacetylneriifolin by mp, colour reactions, elemental analysis, UV, IR, MS and direct comparison with diacetylneriifolin prepared from neriifolin.

Comment. The precursor for cerberin in *C. odollam* has been presumed to be acetylthevetin B (diglucomonoacetylneriifolin) as in *Thevetia neriifolia* [4,5]. The occurrence of diacetylneriifolin in fresh seed kernels of *C. odollam* suggests that this compound could also be a precursor

of cerberin as it has been observed [6] that of the two acetyl groups attached to the sugar thevetose, the one attached to C₄ is more labile than that attached to C₂. It is possible that either through enzymatic action or change in pH during extraction and working up, the labile acetyl group is lost giving rise to cerberin. Furthermore, to our knowledge, this appears to be the first record of occurrence of a diacetylcardenolide in nature.

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