



New Alkaloids from *Pancratium maritimum*

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Abstract:

As a part of ongoing search efforts for the discovery of anticancer lead entities from natural sources, bulbs and flowers of the amaryllidaceous plant *Pancratium maritimum* have been investigated. Fractionation of the extracts of the fresh flowers and bulbs of *P. maritimum* led to the isolation of four new alkaloids, namely pancrimatines A (1) and B (2), norismine (3), and pancrimatine C (4), together with the previously reported N-methyl-8,9-methylenedioxy-6-phenanthridone (5), trispheridine (6), and N-methyl-8,9-methylenedioxy-phenanthridine (7). The structures of these alkaloids were established on the basis of extensive 1D and 2D NMR and high-resolution mass spectral analyses as well as comparison with the literature. Compounds 2 and 7 showed antiproliferative and antimigratory activity against the highly metastatic human prostate cancer cell line PC-3 cells without cytotoxicity. The phenanthridine alkaloid class was identified as having potential for use to control prostate cancer proliferation and migration.

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