Steroids from Dysoxylum grande (Meliaceae) leaves

ABSTRACT

Seven new 23-oxo-cholestane derivatives named as grandol A (1), B (2), C (3), D (4), E (5), F (6), and G (7) were isolated from Dysoxylum grande leaves alongside with a new 3,4-secodammar-4(28)-en-3-oic acid derivative (8). The structures of the compounds were elucidated based on the interpretation of spectroscopic data, and their relative configurations were established by NOESY 2D NMR data. All of the isolates were tested for anti-acetylcholinesterase activity using thin layer chromatography (TLC)-bioautography with fast blue B salt. Only grandol A (1) and B (2) showed positive results, with clear discoloration at a concentration of 12.5 ppm. However, the obtained IC50 values for grandol A and B, when using Ellman's method, were not significant (>200 μg/ml).

Keyword: Dysoxylum grande; Grandol derivatives; Secodammarenoic acid derivative; Anti-acetylcholinesterase.