Flavonoids from Malaysian Uncaria Lanosa Var. Farrea

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Uncaria species are generally used as spasmolytics, analgesics and sedatives for symptoms associated with nervous disorders but their primary uses derived from traditional medicine is for the treatment of hypertension. In Malaysia, Uncaria species is also known as “Gambir”/akar kait- kait or akar hitam and “gegambir paya” or “gegambir hitam” are recorded for Uncaria lanosa. Continuing our interest in the genus, phytochemistry of the stems of U. lanosa var. farrea has afforded three flavones, 3-methyl-3',4',5,7-tetrahydroxyflavone, quercetin, rutin and two coumarins, 4,7,8-trihydroxycoumarin and scopoletin along with two major alkaloids, pteropodine and isopteropodine. This is the first report of the isolation of 3-methyl-3',4',5,7-tetrahydroxyflavone from a natural source. The structures of compounds were elucidated by various spectroscopic techniques including ¹H,¹³C and 2D NMR as well as by UV, IR and LC-MS methods and comparison with literature.

Keywords: Uncaria lanosa var. farrea, 3-methyl-3',4',5,7-tetrahydroxyflavone, quercetin, rutin, 4,7,8-trihydroxycoumarin, scopoletin, pteropodine, isopteropodine.