Anti-inflammatory Constituents of *Mortonia greggii* Gray

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A new phytochemical study of *Mortonia greggii* (Celastraceae) afforded four friedelan derivatives (1–4), three lupanes (5–7), retusine (8), two esterified polyhydroxyagarofurans (9–10), mortonin C (11) and photomortonin C (12). The anti-inflammatory activity on carrageenan and 12-O-tetradecanoylphorbol-13-acetate induced models of inflammation, as well as the ability to inhibit the nitric oxide (NO) produced by lipopolysaccharide-stimulated mouse peritoneal macrophages were evaluated for the main metabolites. Our results showed that the friedelan dehydrocanophyllic acid methyl ester (1) exhibits an anti-inflammatory effect which could be related to an inhibition of prostaglandin and NO production. The activity of lupeol (5), 29-hydroxylupeol (6) and 29-hydroxylupenone (7) might be involved with the prostanoid synthesis. The presence of the hydroxy groups in 6 appears to be important for activity. The edema inhibition capacity of retusine (8) could be related to a reduction of the prostaglandin production. The agarofuran derivative 10 is an NO inhibitor whose activity is probably not involved in the synthesis of prostaglandins.

**Key words:** Mortonia greggii, Anti-inflammatory Activity, Nitric Oxide