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