Sesquiterpene Lactones from *Dimerostemma* Species (Asteraceae) and *in vitro* Potential Anti-Inflammatory Activities

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Two Brazilian species of *Dimerostemma* (Asteraceae) were chemically investigated. Two known sesquiterpene lactones (STLs), a germacrolide and an eudesmanolide, were isolated from *D. episcopale* while *D. brasilianum* afforded the new germacranolide 1\(\beta\),5\(\beta\),10\(\alpha\)-trihydroxy-8\(\alpha\)-angeloyloxy-germacra-3,11(13)-dien-6\(\alpha\),12-olide in addition to a known one. Structure identification based on NMR and MS analyses. 1\(\beta\),10\(\alpha\),4\(\alpha\),5\(\beta\)-Diepoxo-8\(\alpha\)-angeloyloxy-costunolide isolated from *D. brasilianum* was studied for its anti-inflammatory activity. This STL completely inhibited DNA binding of the transcription factor NF-\(\kappa\)B at a concentration of 5 \(\mu\)M and 10 \(\mu\)M in Jurkat T and Raw 264.7 cells, respectively. Elastase release from human neutrophils was reduced to 50\% at a concentrations of 23 \(\mu\)M after stimulation with PAF and of 27 \(\mu\)M after stimulation with fMLP without showing cytotoxic effects. Additionally, elastase was also directly inhibited.

Key words: *Dimerostemma*, Germacranolides, Anti-Inflammatory Activity