

## Abstract

Mondiawhytei is used for treatment of dysmennorrhea, gastro intestinal colic, post-partum pains among other uses in the practice of traditional medicine in Africa. In the present study, the in vivo antinociceptive effects of two compounds, stigmasterol and 9-hexacosene isolated from Mondia whytei roots has been investigated. Bioactivity guided extraction and isolation of stigmasterol and 9-hexacosene was carried out. The formalin test was used in assessing the antinociceptive activity. Stigmasterol reduced the time spent licking, biting and/or lifting the injected paw in both the early and late phases of the formalin test. This reduction was found to be dose dependent and statistically significant ( $p < 0.001$ ) at a dose of 30 mg/kg body weight. 9-hexacosene produced dose-dependent and statistically significant ( $p < 0.001$ ) antinociceptive effect on the late phase of the formalin test at a dose of 7.5 mg/kg body weight. No motor, neurological or other behavioral deficits were observed. Conclusion: Results of the present study supported the utilization of Mondia whytei in Africa folk medicine and revealed stigmasterol and 9-hexacosene as the major antinociceptive principles in the roots.