ANALGESIC ACTIVITY OF METHANOL LEAF EXTRACT OF 
DESMODIUM VELUTINUM (P. BEAUV.) DC (PAPILIONACEAE)

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ABSTRACT

Desmodium velutinum (family Papilionaceae) is used in Nigeria and Lokoja in particular for the treatment of stomachache and related ailments. The toxicity level of (LD50) and the analgesic activities of the methanol leaf extract of D. velutinum were evaluated at three dose levels (100, 200, 300 mg/kg) on the experimental models of pain in mice. The result of LD50 was greater than 3000 mg/kg showing that D. velutinum extract is relatively safe for human consumption. The anti-nociceptive activity was evaluated using the hot-plate and abdominal constriction tests. The leaf methanol extract produced significant (P<0.05) inhibition of thermal nociception induced by hot plate. On chemical nociception induced by acetic acid introduced through intra-peritoneal route, the extracts significantly (P<0.05) decreased the number of writhes episodes and the time spent before jumping off the hot-plate in a dose independent manner. These results suggest that the extract of D. velutinum may act by inhibiting the pain mediators. These findings may justify the use of the plant in traditional medicine in the management of pain and related diseases in Nigeria.

Keyword: Analgesic, activity, methanol, leaf, Desmodium velutinum

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How to cite this article: