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# Analgesic and CNS depressant activities of extracts of *Annona reticulata* Linn. bark

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**Abstract**

The study was designed to evaluate possible effects of various extracts of *Annona reticulata* bark on CNS. Petroleum ether, ethyl acetate and methanol extracts of the bark of *Annona reticulata* L. (Annonaceae) were evaluated for analgesic and CNS depressant activities in different animal models. All the extracts exhibited significant central analgesic activity in the hot plate method in mice. All the extract showed statistically significant mild to moderate central nervous system depressant activity assessed by locomotor activity assay and pentobarbitone sleeping time test.

**Key words:** *Annona reticulata* Linn; bark; analgesic activity; CNS depressant activity; locomotor activity; pentobarbitone sleeping time test

## Introduction

*Annona reticulata* L. is a small tree, 4-6 m in height. It occurs throughout India, native to tropical America, particularly the West Indies, completely naturalized and cultivated in some part of India (Kirtikar & Basu, 1987). The bark of the plant *Annona reticulata L.* locally known as Ramphal, is a powerful astringent and is stated to be given as tonic. The West Indies and in Central and South America the fruit is much used as an antidysenteric and anthelmintic (Anonymous, 1994). The plant has been used as anti-inflammatory, in wound healing, anti-anxiety, and anti-stress, anti-mutagenic and spasmolytic. Leaf and stem extract showed inotropic, positive chronotropic and spasmolytic activities (Rastogi & Mehotra, 1993).

The seed of this plant is reported to contain acetogenins mainly cis and transisomurisolenin (Chang *et al.*, 1998), annoreticuin, bullatacin, squamosine and rolliniastatin (Maeda *et al.*, 1993). Leaf and roots contain Sesquiterpenes mainly spathenelol, muurolene, copaene, e-

 