

Evaluation of Medicinal Importance of Nothapodytes Nimmoniana

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Abstract: *Nothapodytes nimmoniana* (Amruta), also known as *durvasanemara*, *kodsa*, *ghenera* (Hindi), *narcya* and *kalgur* (Marathi), is a medicinal herb distributed immensely in India, especially in Maharashtra, Goa, Kerala, Assam and Jammu. The feature that distinguishes this plant the most is the production of camptothecin (CPT) which is a known anticancer agent. Camptothecin is a quinoline derivative and is referred to as a topoisomerase I inhibitor. Topoisomerase I is an enzyme that facilitates the unwinding of DNA during replication and transcription, hence it is vital in the duplication of genetic material.

Apart from this, camptothecin possesses anticancer, antibacterial, anti-inflammation and also antioxidant activity. Pharmacological activities of the plant include cytotoxic, antimicrobial, antifungal, anti-inflammatory and antioxidant among others. Camptothecin obtained from *N. nimmoniana* has been widely explained for its Use for the treatment of cancer.

In addition, the plant also possesses other bioactive compounds including quercetin and gallic and ellagic acids that enhance its medicinal value. The distribution of camptothecin in the leaves and stems of the plant varies; therefore, the population of *N. nimmoniana* must be assessed in order to achieve maximum efficiency in drug extraction. To put it concisely, *Nothapodytes nimmoniana*, a traditional herb also called as Amruta or Narkya, is considered significant because it yields camptothecin, an efficient cancer treatment drug. It also has several other names and is predominantly located within the Indian subcontinent. The plant also offers a broad range of therapeutic effects such as anticancer, antimicrobial, antifungal, anti-inflammatory, and antioxidant..

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