



A Review on *Michelia Champaca* and Flowers

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Abstract: *Michelia champaca* Linn. Known as *Champaca* is Belonging to family of *Magnoliaceae*. It Consists of 12 genera and 220 species of evergreen trees and shrubs. In recent times there are several reports of medical specialty roles and activities of *Michelia champaca* and its active principles on the circulatory system, antipyretic, diuretic. The Phytochemical analysis of the leaves and flowers of the plant showed the presence of alkaloids, tannins, glycosides, carbohydrates, amino acids, flavonoids and sterol in different solvent system. The petroleum ether extract of the dried flower contained n-alkane hydrocarbons, unsaturated aliphatic ketones, beta sitosterol and quercetin. The quercetin forms the first report of its occurrence in the genus *Michelia* (Shalini and Jaggi 2004) Lago et al (2009) reported that volatile oils contained six sesquiterpene hydrocarbons, four oxygenated sesquiterpenes and two aliphatic alcohols from water using dichloromethane solvent in leaves of *M. champaca* L. This article provides the collective information about the phytochemical constituents isolated from various parts of this plant used in a modern scenario for the treatment of various ailments like β -sitosterol, sesquiterpenes, parthenolide, dihydro parthenolide, gallic acid, quercetin, lirioidenine, essential oils, starch, etc. Traditional uses of the plant in the treatment of various disease like rheumatism, gout, diuretic, febrifuge, etc..

Keywords: *Michelia champaca*, Unsaturated ketones, Sesquiterpenes

REFERENCES

- [1]. Raja. S, Ravindranath Kodure, A complete profile on *Michelia champaca* traditional uses, pharmacological activities and phytoconstituents, International journal for pharmaceutical research scholars (JPRS) vol 3, I.2, 2014-496-504.
- [2]. Kiritikar. K. R. and Basu. B. D. Indian medicinal plant. text book vol-I.P.No.57-58, vol- II, 2615-2616.
- [3]. K.N.Geeta, K. J. Jayprakash and Y .P. Nagarja, a preliminary pharmacognostical study on leaves and flowers of *Michelia champaca* L. *Magnoliaceae*, Journal of applied and natural Science 3(2), 2011, 228-231
- [4]. Lee Seongwei, Wendy Wee, Julius Yongfusionsong, Desyfitryasyamsunir. Characterization of antimicrobial, antioxidant, anticancer property and chemical composition of *Michelia champaca* seed and flower extracts. *Pharm sci*, 4(1) 19-24
- [5]. <https://www.apjtm.org>
- [6]. Jacobsson U, Kumar U and Saminathan S: Sesquiterpene lactones from *Michelia champaca*. *Phytochemistry* 1995; 39: 839-43.
- [7]. Keerti Desai, Lalitha B. R., *Champaka* an aromatic boon, international Ayurveda publication vol III, issue 2, 822-829.
- [8]. R. Vivekkumar, Satishkumar, S. Shashidhara, antioxidant and antimicrobial activities of various extracts of *Michelia champaca* linn flowers, S. Anitha of M. Manjula world applied science journal 12(4):2011, 413-418.
- [9]. S.S Khadabadi, S.L. Deore, B. A. Baviskar, Experimental phytopharmacognosy. A comprehensive guide, Nirali Prakashan, may 2011, 3.1
- [10]. K. R. Khandelwal, Varunsethi, Practical Pharmacognosy, Nirali Prakashan 23rd edition, Oct.2013, 25.1-25.6
- [11]. Ahmad H, Sexena V, Mishra A and Gupta R: Diuretic activity of aq. extract of *M. champaca* Linn. Leaves and stem bark in rats. Newsletter 2011c; 2: 568-74
- [12]. Khan MR, Kihara M and Omoloso AD: Anti-microbial activity of *champaca*. *Fitoterapia*. 2002; 73: 744-8.



- [13]. Kumar MS, Aparna P, Poojitha K, Krishma SK and Astalakashi N: A Comparative study of *Michelia champaca* Flower and leaves for anti-ulcer activity. *Int J PharmaSci Res* 2011; 2: 1554-8.
- [14]. Gupta S, Mehta K, Chauhan D, Kumar S and Nair A: Morphological changes and antihyperglycemic effect of *champaca* leaves extract on β - cell in Alloxan-induced diabetic rats. *Recent Res Sci Tech* 2011; 3: 81-87.
- [15]. Vimala R, Nagarajan S, Alam M, Susan T and Joy S: Anti-inflammatory and antipyretic activity of *Michelia champaca* , (White variety), *Ixora brachiata* Roxb. And *Rhynchosia Cana* (Willd.) D.C. flower extract. *Indian J Exp Biol* 1997; 35: 1310-14.
- [16]. Shanbhag T, Kodidela S, Shenoy S, Amuthan A and Kurra S: Effect of *champaca* Linn. Flowers on burn wound Healing in Wister Rats. *Int J Pharma Sci Rev Res* 2011; 7: 112-5.
- [17]. Mohamed HM, Jahangir R, Hasan SMR, Akter R, Ahmed T, Md. Islam I and Faruque A: Anti-oxidant, analgesic and cytotoxic activity of *champaca* Linn. Leaf. *Stamford J Pharma Sci* 2009; 2: 1-7.
- [18]. Yeh YT, Huang JC, Kuo PL and Chen CY: Bioactive constituents from *Michelia champaca*. *Nat Prod Commun* 2011; 6: 1251-2.
- [19]. Shrivastava RC, Singh RK, Community A and Mukherjee TK: Indigenous Biodiversity of Apatani Plateau: Learning on Bioculture Knowledge of Apatani Tribe of Arunachal Pradesh for Sustainable Livelihoods. *Indian J Trad Knowl* 2010; 9: 432-42.