

**MEDICINAL PROPERTIES OF BILVA (AEGLE MARMELOS CORR.)****Soni Gupta<sup>1</sup>, Abhishek Gupta<sup>2</sup>**

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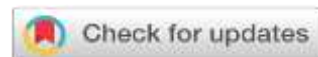
<https://doi.org/10.46607/iamj3210092022>

(Published Online: September 2022)

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**Article Received:** 10/08/2022 - **Peer Reviewed:** 21/08/2022 - **Accepted for Publication:** 25/08/2022

**ABSTRACT**

The ancient people of India had an incredible knowledge of the medicinal value of plants, which remained hibernated for a long time. Recent time has witnessed a resurgence of interest in the sagacity and veracity of our monumental heritage. *Bilva* (*Aegle marmelos* Corr) has played a major role in the rich and diverse help of India. *Bilva* (*Aeglemarmelos* Corr.) roots and fruits oil have been most extensively used as a healing agent for thousands of years (Su.ci. 17/12, 27) Fruits are well known as a dietary supplement for health and nutrition.

The presence of antioxidant properties in its various parts has opened a new avenue for its use in free radical-mediated disease viz. Peptic ulcer, Cancer, Diabetes mellitus, Hypertension, etc. Su.ci. 28/10, 11, 17, Singh, R.P., S. Banerjee & A.R, ROA 2000. Effect of *Bilva* (*Aegle marmelos* Corr.)<sup>1</sup> on biotransformation Enzyme and protection against free radical-mediated damage in mice. J. Pharm. Pharmacol.52 (8) 991-1000<sup>2,3</sup>. This plant has a prominent place in the Ayurvedic system of medicine, where it belongs to the medicinal groups viz. *Arshoghna-mahakashaya*, *Asthapnopaga-mahakashaya*, *Anuvasanopagamahakashaya*, *Shothaharam-ahakashaya* (C.Su. 4/12, 25, 26, 38) *Brihatpanchamula* (Su. Su 38/69) *Dashamula* (Su. Su 38/64), *Varunadi gana* (Su. Su 38/8 & A.H 15/21), *Ambasthadigana* (Su. Su 38/46) *Priyanguvadi gana* (A.H 15/38) respectively.<sup>4,5</sup>

**Keywords:** *Bilva*, *Swasa*, *Kasa*, *Hridya Roga*, *Madhumeha* etc.

## INTRODUCTION

The medicinal virtue of this plant is mentioned in ancient literatures viz Charaka Samhita, Sushruta Samhita, Astanga Sangraha, Bhava Prakash, Kaidev-Nighantu, Raj-Nighantu, Dhanvantari-Nighantu, etc. The useful parts of Bilva (Aegle marmelos Corr) are roots, leaves, fruits, seeds & wood (bark). The roots have wider application in the treatment of *Udararoga* (Gastric disorders) (C.Su 2/19, 20, 28, C.Ci 14/69, 90, 100, 195, Su.Ut. 40/57, 67, 71, 78, 91, 95, 110, 114,) *Swasaroga*, *Kasa roga* (Respiratory disorders) (C.Ci 17/94, 142, 18/77, Su.Ut. 51/27, 47 A.H.Chi 3/20,134), *Hridayaroga* (Rheumatism) (C.Ci 29/104) *Madhumeha* (Diabetes mellitus) (Su.Ut. 41/48), *Sarpadansh* (Snakebites) (Su.Ka. 5/77 & 8/47) respectively.<sup>6,7</sup> The leaves are used to cure *Atisar* (Diarrhea), *Twaka vikara* (skin diseases), *Mansika roga* (Nervous disorders), and also to prevent premature greying & falling of hairs. It is also believed that the thorn of *Bilva* (Aegle marmelos Corr.) used as a garland for the treatment of different types of Graha viz *Skandagraha* (Su.Ut. 28/7), *Skandapasmara* ((Su.Ut. 29/3), *Shitaputana* (Su. Ut.34/3) *Mukhamandika* (Su.Ut. 35/3), *Naigmesha* (Su.Ut. 36/3). There is an indication of external application of roots of *Bilva* (Aegle marmelos Corr.) (Manidharana) in mental disorders. (P.V. Sharma Vol. V) The fruits are used in the treatment of *Apasmara* (Epilepsy), *Netra roga* (Eye disorders), *Karna roga* (Ear disorders), *Atisar* (Chronic diarrhea) & certain *Mansika-vikara* (Mental disorders). *Bilva* (Aegle marmelos Corr) has *Kashaya*, *Tikta Rasa*, *Laghu Ruksha guna*, *Katu-Vipaka*, and *Ushna- Virya*, properties with *Kaphavata shamaka*. The young fruit is astringent, sour, demulcent, quick acting promotes dialation, and is useful in Cough & Vata disorders (C. Ci. 18/77, 123, C. Ci. 28/96, C. Ci. 19/26, 52, 110, C.Si. 8/38, 10/19, Su.Ut. 12/11, 21/6, 21/35, 40/67, 71, 74, 78, 91, 110, 114, 155, 51/17, 27, 49, Su. Ci. 28/17).

## MATERIAL AND METHODS

Therapeutic activity and literary data of *Bilva* (Aegle marmelos Corr) were explored from classical texts

viz. *Charaka Samhita*, *Sushruta Samhita*, *Ashtanga Hridaya*, and also from articles published in journals.

## OBSERVATION -

*Bilva* (Aegle marmelos Corr) is popularly named as Bengal quince or Bael tree, a semideciduous thorny tree belonging to the family Rutaceae. It is found throughout India-sub Himalayana track, Jhelam to Assam as well as Central India. This plant is locally named 'Shreephala'. Being considered a sacred tree it is often cultivated near the premises of the temple and private dwellings of Hindus. It is propagated by seeds as well as by root cuttings that develop when the roots are cut or injured. The medicinal virtue of this plant is mentioned in Veda and Ayurvedic literature viz. *Atharvaveda*, *Charaka Samhita*, *Sushruta Samhita*, *Ashtanga Hridaya*, *Dhanvantari nighantu*,<sup>16</sup> *Raja nighantu*, *Kaiyadeva nighantu*<sup>17</sup> etc. The medicinal value of this plant has also been reported by several researchers- Shivrajan & Bal chandran, 994; Kolamal, 1979; Vyas et al, 1979; Karunanayaka et al, 1984<sup>6</sup>; Kurup et al, 1979; Chopra et al, 1986; D' Rozario, 1999<sup>3</sup>; Ghosh, 1950<sup>4</sup>; Gopal Pillai, 1986; Kritkar & Basu, 1984<sup>7</sup>; Pandey, 1994<sup>8</sup>; Warreyer, 1994; This plant finds a prominent place in Unani, Siddha, and Naturopathy also Many of its medicinal properties have been kept secrets by the traditional herbal practitioners. Since the references to the curative properties of *Bilva* (Aegle marmelos Corr) abound in the ancient text, the documentation of such Ethnic information is certainly rich in the present status of this plant. The roots of *Bilva* (Aegle marmelos Corr) are a major ingredient of *Dashmula*, an important Ayurvedic formulation that is popularly used for the treatment of *Vata and Kaphaja vyadhi* (C. Su 5/107 C. Ci. 15/58, C. Ci. 28/96, C.Si. 10/19, Su. Ci. 18/5, Su. Ci. 37/12,) The root bark is indigenously used for the treatment of *Udara roga* (Gastric disorders), *Madhumeha* (Diabetes mellitus), *Sarpadansha* (Snakebite), *Hridaya roga* (Rheumatism), *Asthi roga* (Bone diseases), *Jwara* (Fever), *Shwasa & Kasa roga* (respiratory diseases) in the form of decoction. *Bilva* (Aegle marmelos Corr) also known by the name

'Shivadrum', which means the tree of Lord Shiva, is considered an auspicious tree by Hindus. Since ancient times the leaves have been offered in prayer to Lord Shiva. There is a mythological story behind this practice. Once lord Shiva had drunk a highly poisonous shake with the intention of saving this universe from its ultimate destruction. On seeing this his wife Devi Parvati pressed his neck so that the poison would not go down in his throat, this led to the accumulation of the poison and imparted a blue colour to the neck region. To nullify the poison of that drink, the physician of Devas suggested wearing a garland made with the leaves of *Bilva* (*Aegle marmelos* Corr) (*C.Su* 2/19, 20, 28, *C.Ci* 14/69, 90, 100, 195, *Su.Ut.* 40/57, 67, 71, 78, 91, 95, 110, 114,), (*C.Ci* 17/94, 142, 18/77, *Su.Ut.* 51/27, 47 *A.H.Chi* 3/20, 134), (*Su.Ka.* 5/77 & 8/47) (*Su.Ut.* 41/48), (*C.Ci* 29/104). The therapeutic potential of root bark for its hypoglycemic activity was reported by Vyas et al, (1979); & Karunanayake et al, (1984)<sup>6</sup>; The indigenous uses of

the leaves for the treatment of diabetes mellitus were also reported by Sharma et al, 1996; Kakiuchi et al, 1991<sup>5</sup>; suggested that an extract of the root bark is effective for *Hridaya roga* (Heartdiseases). The anti-protozoal & antifungal activity of the leaves was reported by Henary & Brown, 1924; and Rama et al, 1997; In a study conducted in ICAR, it is reported that the fruit of *Bilva* (*Aegle marmelos* Corr) is superior to mango in possessing higher percentage of carbohydrates, proteins, fat, soluble fibers, minerals vitamin A & C (Rajarajan, 1997;). The fruit is under-exploited in U.P even though it is highly valued in North India to make bel-sharbat. The roots, leaves, bark, and fruits of *Bilva* (*Aegle marmelos* Corr) are rich in many bioactive compounds (Chopra et al 1986; Thomas et al, 2000; Sabinish and Daniel 1990; D' Rozario, 1999;). We can summarize the therapeutic uses of different parts of *Bilva* (*Aegle marmelos* Corr) in the following table:

**Table1.1**

S.NO.	Useful Parts	Therapeutic Uses	References
1.	<i>Bilva Phala</i>	<i>Jwaratisara</i>	<i>C.Su.3/182</i> <sup>15</sup>
2.	<i>Bilva Phala (Pippalyadi Ghrita)</i>	<i>Jirna Jwara</i>	<i>C.Chi.3/220</i>
3.	<i>Bilva Phala</i>	<i>Jwarita-parikartika</i>	<i>C.Su.3/186</i>
4.	<i>Bilva Moola</i>	<i>Medo roga</i>	<i>C.Su.21/24</i>
5.	<i>Bilva Moola (Dashmoolighrita)</i>	<i>Kaphaja Gulma</i>	<i>C.Chi.5/142</i>
6.	<i>Bilva Moola</i>	<i>Vataja Chhardi</i>	<i>Ch. Chi. 20/23</i>
7.	<i>Bilva Moola &amp; Phala (Punarnavadi Tail)</i>	<i>Vataja Hridaya Roga</i>	<i>C.Chi.26/82</i>
8.	<i>Bilva Moola Chhala (Shatahva-dhoomvarti)</i>	<i>Vataja Pinasa</i>	<i>C.Chi.26/135</i>
9.	<i>Bala-bilva</i>	<i>Pravahika</i>	<i>C.Chi.19/34</i>
10.	<i>Bala-bilva</i>	<i>Purisha Kshaya</i>	<i>C.Chi.19/35</i>
11.	<i>Bala-bilva</i>	<i>Kaphaja-Atisara</i>	<i>C.Chi.19/114</i>
12.	<i>Bilva Patra</i>	<i>Kamala</i>	<i>C.Chi.16/58</i>
13.	<i>Bilva Peshika (Tejovatyadi Ghrita)</i>	<i>Hikka &amp; Swasa</i>	<i>C.Chi.17/94</i>
14.	<i>Bilva Churna</i>	<i>Ayurvedhaka Rasayana</i>	<i>Su.Chi.28/10</i> <sup>19</sup>
15.	<i>Bilva moola Kwatha</i>	<i>Ayurvedhaka Rasayana</i>	<i>Su.Chi.28/11</i>
16.	<i>Bilva Kantaka (Mala Dharana)</i>	<i>Skandha Graha</i>	<i>Su.Ut.28/7</i>
17.	<i>Bilva Chhala (Parishechana)</i>	<i>Skanda-apasmara</i>	<i>Su.Ut.29/3</i>
18.	<i>Bala-bilva</i>	<i>Leena Garbha</i>	<i>A.H. Sha.2/19</i> <sup>13</sup>
19.	<i>Bilva Phala Peya</i>	<i>Akasmata Garbhapata</i>	<i>A.H. Sha.2/11</i>
20.	<i>Bilva Phala Peya</i>	<i>Jwaratisar</i>	<i>A.H.Chi.1/28</i>
21.	<i>Bilva moola (Vasishtha Haritaki)</i>	<i>Kasa</i>	<i>A.H.Chi.1/134</i>

## DISCUSSION

The study revealed that almost all parts of *Bilva* (*Aegle marmelos* corr) have immense medicinal potential. Either the roots or leaves form an essential constituent of many ayurvedic preparation. Indigenously the roots have wider application in the treatment of *Udar roga* (Gastric disorders), *Madhumeha* (Diabetes mellitus), *Sarpadansha* (Snakebite), and *Hridaya roga* (Rheumatism), *Jwara* (Fever), *Swasa & Kasa roga* (respiratory diseases). The leaves are germicidal and antitoxic and are also found to be good for nervous disorders, DM, and cardiac problems. The leaves extract is also good for hair growth and to cure nausea. Since different parts of the plants are rich in many bioactive compounds, further study may verify the pharmacological action of different compounds in animal models. Considering the immense medicinal potential, the study highlights the importance of conservation, cultivation, and also identification of elite varieties of *Bilva* (*Aegle marmelos* Corr) growing in a group climatic conditions of different parts of India.

## CONFLICT OF INTEREST

We have no conflict of interest.

## SOURCE OF SUPPORT

Only texts books.

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**Source of Support: Nil**

**Conflict of Interest: None Declared**

How to cite this URL: Soni Gupta & Abhishek Gupta: Medicinal Properties of Bilva (Aegle Marmelos Corr.). International Ayurvedic Medical Journal {online} 2022 {cited September 2022} Available from: [http://www.iamj.in/posts/images/upload/2512\\_2516.pdf](http://www.iamj.in/posts/images/upload/2512_2516.pdf)