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A comprehensive review of *Emblica officinalis* (Āmla): Its medicinal properties and therapeutic uses

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Abstract
Āmla (*Emblica officinalis*) tree is deciduous with fleshy fruit nearly about the size of lemon. It is one of the richest sources of ascorbic acid and is used for its healing properties in Unani and Ayurvedic system of medicine since antiquity. Āmla contains iron, calcium, phosphorus and tannins. It is haematinic, anabolic, antibacterial, anti-inflammatory, hepatoprotective and nephroprotective. Scientists have reported that Āmla possesses radiomodulatory, chemoprotective, free radical scavenging, anti-neoplastic and immunomodulatory effects. In traditional systems of medicine āmla is used in anemia, palpitations, and anxiety. Its *sharbat* is considered to be useful in jaundice, hemorrhoids, flatulence, and dyspepsia. This review is aimed to be acquainted with general description, physical, chemical and medicinal properties of āmla (*Emblica officinalis*). Need of the hour is to validate the healing properties of āmla on scientific grounds in order to avail the said benefits at low cost with no undesirable effects.

Keywords: Āmla, Anemia, Ascorbic acid, chemoprotective, *Emblica officinalis*, Unani

1. Introduction
Āmla (*Emblica officinalis*) is a fleshy fruit nearly about the size of lemon, sour in taste and green in color [figure 1]. It is one of the richest sources of vitamin C. It is used as a medicine either individually or in compound formulations, in Unani and Ayurvedic systems of medicine for centuries.

2. Morphology
2.1 Macroscopic description
Tree of Āmla is small deciduous which grows up to 4-8 m tall. Its leaves are feathery, simple, subsessile, and oblong resembling pinnate leaves. Flowers are greenish yellow, unisexual and lie in axillary fascicles. Male flowers are present in upper and female flowers in lower fascicles. Fruits are drupe, fleshy with obscure 6 lobes and seeds are trigonous. Fruit is green when immature and becomes yellow when fully matured [1, 2, 3].

2.2 Microscopic description
The fruit consist of pericarp, having epicarp and mesocarp. Epicarp is made of single layer of epidermal cells, which are oblong possessing a cuticle on them. Mesocarp is the widest part of the fruit and is made of polyhedral parenchymal cells. Scattered vascular bundles lie in mesocarp and consist of xylem and phloem elements [4].

2.3 Taxonomy
Botanical name: *Emblica Officinalis Gaertn* [5].
Synonym: *Phyllanthus emblica Linn* [5, 6].
Family: *Phyllanthaceae* [1, 2, 5].
Genus: Phylanthus

2.4 Vernacular names [2, 6, 7].
English: Emblic, Indian goose berry
Arabic: Amlaj
Persian: Āmla
Urdu: Āmla
Hindi: Anvla, Aohla
Sanskrit: Amlaki, Amrit phal, Shree phal

Bengali: Amlaki, Amla
Gujrati: Amali, Ambala
Tamil: Nelli

2.5 Habitat
It is native to southeast Asia and is cultivated in many subtropical regions of India [2, 5].

2.6 Period of occurrence
Āmla tree is perennial and fruits mature in the months of October to December.

2.7 Parts used as medicine
Mostly Fruit is used for medicinal purposes in fresh or dried form. Root, leaves and bark also possess some medicinal properties [6].

2.8 Procedure and time of collection
The tree is grown by seed germination or by budding. It flowers in hot season and fruit ripen in winter season. Commercially fruits are collected when ripened, i.e. in winter [1].

3. Pharmacognosy
Āmla is obscurely 6 lobed which is sour in taste and is one of the richest sources of vitamin C, besides containing iron and other minerals. Each hundred gram of the fruit pulp contains about 600-750 mg of ascorbic acid [1].

3.1 Chemical constituents
The fruit is an important source of ascorbic acid. It also contain some iron, calcium, phosphorus, tannin, gallic acid, ellagic acid, superoxide dismutase and cytokinine like substances such as zeatin, zeatin riboside and zeatin nucleotide. The leaves contain gallic acid and bark contain tannin [1, 5].

3.2 Temperament (*Mizāj*)
Its temperament is cold in first degree and dry in second degree [7].

3.3 Actions (*Af`aal*)
Āmla is haematinic (*muwallid-i-dam*), anabolic (*munbit-i-lahm*), astringent (*qābiz*), anti-oxidant, anti-aging, antibacterial, antiseptic, anti-inflammatory (*muhallil*), analgesic (*musakkin-i-alam*), antipyretic (*dāf'i-huma*), emollient (*murakhkhi*), detergent (*jāli*), aphrodisiac (*muqawwī-i-bāh*), hepatoprotective (*muhāfi-i-jigar*), nephroprotective (*muhāfiz-i-kulliya*), neuroprotective (*muāfiz-i-āsāb*), carminative (*kāsir-i-riyāh*) and anti-tumor [8, 9, 10]. It is used in diabetes, diarrhea, bacillary dysentery, dyspepsia, and hemorrhagic disorders. According to Geelani it is soothing to yellow bile (*musakkin-i-safra'*), refrigerant to blood and expels out the black bile (*mushil-i-sawdā'*) and phlegm (*mushil-i-balgham*).[7,10,11] More over it strengthens eyes, gums, brain and improves memory. Bark of the tree is astringent (*qābiz*) and leaf juice is antiemetic (*mān'i qai*) [2].

3.4 Therapeutic uses
Āmla being one of the richest sources of vitamin C is used in pyorrhea, bleeding gums, scurvy, and hemorrhagic disorders. Dried fruit of āmla is used in anemia, weakness of heart, palpitations, and anxiety [5]. Its *Sharbat* is useful in jaundice, hemorrhoids, flatulence, dyspepsia, and loss of appetite. *Shīr-i-āmla* is an energizer, rejuvenator and gives strength to heart, nerves and gastrointestinal tract.[10] Āmla juice has been found to provide protection from tuberculosis, asthma, bronchitis, influenza, colds, dementia, premature aging, and cancer. It is also useful in diabetes mellitus, dysenteries, diarrhoea, colitis, amoebiasis, piles, healing of ulcers etc. Its decoction is used as douche in leucorrhoea, gonorrhea etc [5, 10]. It enhances hair growth and their strength. It is antioxidant and immune booster hence gives protection from viral infections like influenza, common cold and is also thought to have an efficient preventive role from current COVOD-19 infection.[13] It can be given as adjuvant in AIDS and cancer for effective treatment and early recovery [12, 14].

3.5 Dosage
2-8 g [12]
10-20 [5]

3.6 Adverse effects (*Muzarrat*)
Harmful for spleen in large doses [10, 11].

3.7 Corrective (*Muslih*)
Honey, *Sumbul-i-Tīb*, or *Sharbat-i-Injeer* [8]

3.8 Substitute (*Badal*)
Halela Siyā or *Halela Kablī* [3, 11]

4. Ethnobotany
Āmla is being used for centuries in traditional system of medicines both in Unani and Ayurveda systems is also called as Indian goose berry and is sacred among Buddhists. Being one of the richest sources of vitamin C in addition to other constituents it is primarily used for diseases caused by deficiency of vitamin C like scurvy, bleeding gums etc. it is a best rejuvenator, and immune booster. Recent studies suggest it as anti-oxidant, anti-aging and having anti-cancerous properties as well [5, 9, 15].

4.1 Important formulations
Jawarish Āmla, Anoshdaro, Jawarish Shahi, Safoof-i-Hadim, *Habb-i-Muqil* [16, 17].

5. Scientific reports
Besides above mentioned uses Āmla has been reported to possess radiomodulatory, chemoprotective, and free radical scavenging effects. Further it posses' antimutagenic, antineoplastic and immunomodulatory effects as well [9, 15].

Fig 1: Amla plant with fruit

6. Conclusion

Āmla is having tremendous benefits of health prevention and promotion. Besides possessing versatile medicinal properties and curative functions it is one of the best natural immune modulators, anti-oxidant and anti aging remedy. Need of the hour is to validate these properties on scientific grounds in order to avail the benefits at low cost with no undesirable effects.

7. Conflict of Interest

Not available

8. Financial Support

Not available

9. References

1. Gokhale SB, Kokate CK, Purohit AP. A text book of pharmacognosy. 38th ed. Pune: Nirali Prakashan; c2017. pp. 86, 87, 130, 131.
2. Anonymous. The Wealth of India: Raw materials. New Delhi: NISCAIR and CSIR; 2006;3:168-169.
3. Ghani N. Khaza inul Adviya. New Delhi: Idara Kitāb-ul-Shifa; 2010;1:399-403.
4. Arora D, Shri R, Sharma S, Suttee A. Phytochemical and Microscopical investigations on Emblica Officinalis Gaertn. IJPPR. 2012;4(1):1-4.
5. Khare CP. Indian medicinal plants, An Illustrated Dictionary. New York: Springer Science + business media, LLC; 2007: pp 32, 33, 79, 101, 238, 239, 263, 653, 654.
6. Chopra RN, Nayar SL, Chopra IC. Glossary of Indian Medicinal Plants. New Delhi: CSIR; 1980, 106, 107.
7. Betar ZA. Al Jami'al Mufarridāt al-Adviya wal Aghzia. New Delhi: CCRUM; YNM. Vol I. p. 129-131.
8. Baghdadi MAH. Kitābul Mukhtārāt Fil-Tib (Urdu translation). New Delhi: CCRUM; 2005;2:64, 118, 184, 188, 189, 207, 282.
9. Bhavesh C, Anita K, Barania, *et al*. Emlica offcinalis: A review of its phytochemistry, ethnomedicinal uses and medicinal potentials with respect to molecular mechanism. Science direct. 2016 [cited on 2019 jun 2]; available from (http//doi.org/10.1016/j.phrs.2016)
10. Khan MA. Muhīt-i-Azam. Ist ed. New Delhi: CCRUM; 2018;1:214,215.
11. Sina SR. Alqanūn Fil-Tib (Urdu translation by Ghulam Hasnain Kantūri). New Delhi: Ejaz publishing house; 2010;2:387-409.
12. Duke JA, Godwin M, duCellier J, Duke PK. Hand book of Medicinal Herbs. 2nd ed. Florida: CRC Press. ©2002. pp. 14, 95, 96, 271, 272, 360.
13. Bhat SA, Rather SA, Iqbal A, *et al*. Immunomodulators for curtailing COVID-19: a positive approach. Journal of drug delivery and therapeutics. 2020;10(3-s):286-94. doi: 10.22270/jddt.v10i3-s4085
14. Pullaiah. T. Encyclopedia of world medicinal plants. New Delhi: Regency publications; ©2006;3:1510.
15. Kaushal SP. Cancer & Herbs. New Delhi: Vedic Cancer Research Centre. 2003. pp. 152,161, 183, 185.
16. Kabiruddin M. Bayāz-i-Kabīr. Part II. New Delhi: Idara Kitābul Shifa; 2014, 62.
17. Kabir-ud-din M. Makhzanul Mufradāt. 3rd ed. New Delhi: Idara Kitāb-ul-Shifa; 2014. pp. 50,95,96,225,261,355,356,388,389,415,416.

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