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Review Article

# AMALAKI (*Emblica officinalis* Geartn): A REVIEW FROM CLASSICAL TEXTS WITH SPECIAL REFERENCE TO NIGHANTU AND KOSHA

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**ABSTRACT**

Ayurveda is a profound and comprehensive system of health care that originated in India. This system endeavors to rationalize all the phenomena governing empirical experiences with natural products in medicine. Plants have been one of the important sources of medicines since the beginning of human cultivation. There is an increasing demand for plant based medicines, health products, pharmaceuticals, food supplements, cosmetics etc. The Nighantu, Ayurvedic form of Materia Medica, help significantly to know the meanings of cryptic names of medicinal plants. It is believed that each Samhita has a Nighantu at the end of it. The fruit of Amalaki (*Emblica officinalis* Geartn.) is anabolic, antibacterial, rejuvenative and immunopotent drug. It also possess expectorant, cardiotonic, antipyretic, antiviral, antioxidative and anti-emetic properties. This plant is indicated in various medicinal applications like in the treatment of leucorrhoea and atherosclerosis. Its decoction is used in hyperacidity and as an anthelmintic along with honey. The total extract of the dried fruits of Amalaki shows antibacterial and hypoglycemic activity. The fruit can also be used as a sustained dietary supplement to counteract the cytotoxic effect of prolonged exposure to metals in population of industrial area. It is also reported to inhancing trypsin activity and show hypotensive activity. The present work aims to discuss Amalaki in various Nighantu as the manuscripts or just as the evidence - in a chronological order.

**Key words:** Amalaki, *Emblica officinalis*, Hypoglycemic, Nighantu, Ayurveda.

## INTRODUCTION

Nighantu literature is as ancient as Ayurveda. The term Nighantu is based on the term Nigama. The etymology of *Nigama* is to bring out the concealed or secret meaning of words in a systematic way. This tradition was also adopted by the Ayurvedic scholars to clarify the technical words especially in the field of Dravyaguna. Earlier, they were limited to explain only the synonyms but with the passage of time, the description of properties, action and therapeutic uses also included along with synonyms. Although, the proper importance has not been given to explore the Nighantu. Nighantu of the ancient period were actually like Kosha, containing the synonyms of Dravya. Later on, the drugs were given with description of their properties, actions and uses. In true sense, the Nighantu means collection of words, synonyms and the names of the medicinal plants along with their thorough description.[1]

Amalaki (*Emblica officinalis* Geartn.) is a deciduous small or medium sized tree with crooked trunk and spreading branches growing to a height of 10-15 meters though often shorter. It is found both in wild and in cultivated state throughout tropical India especially in Bengal, Assam, Konkan, Deccan, Carnatic and Western Ghats. It is quite common in low country, in most of the dry open or deciduous forests and on hill sides up to about 200 meter elevation occasionally forming shrub forests to the exclusion of other types.[2] Amalaki is highly nutritious and could be an important dietary source of vitamin C, minerals and amino acids. The edible fruit contains protein concentration 3-fold and ascorbic acid (vitamin C) concentration 160-fold than those of apple. The major amino acids present are: Alanin, 5.4; aspartic acid, 8.1; glutamic acid, 29.6; lycine, 5.3; and prolin, 14.6%. The Fruit also contains phyllembin and curcuminoides. The fruit contains superoxide dismutase 482.14 unit/g fresh wt.[3] Analysis of fresh fruit pulp gave : moisture, 81.2 ; protein, 0.5; fat, 0.1; carbohydrate, 14.1; fibre, 3.4; minerals, 0.7; Ca, 0.05; P, 0.02%; iron, 1.2; niacin, 0.2; and vitamin C, 600mg/100g.[4] The seed oil is rich in linolenic acid (64.8%) and closely resembles linseed oil.[5] The leaves contains gallic acid (10.8mg/g dry basis), besides ascorbic and mucic acid. The bark contains tannins which is identified as mixed type of proanthocyanidin composed partially of 3-O-gallated prodelphinidin and procyanidin.[6]

The fruit of Amalaki (*Emblica officinalis* Geartn.) are anabolic, antibacterial and immunopotent. It possess expectorant, cardiotonic, antipyretic, antioxidative, antiviral and anti-emetic properties. It is also used in the treatment of leucorrhoea and atherosclerosis. Their decoction is used in hyperacidity and as an anthelmintic along with honey. The total extract of the dried fruits of Amalaki shows antibacterial and hypoglycemic activity. Its fresh fruit can also be used as a sustained dietary supplement to counteract the cytotoxic effect of prolonged exposure to metals in population of industrial area. The fruit is found to be beneficial in the treatment of AIDS also. It is also reported to enhancing trypsin activity and show hypotensive activity.[7] Amalaki is explained in almost all the important Nighantu with a variety of synonyms and Guna-karma.

Some important Nighantu and Kosha which described the Amalaki are discussing here as-

**1. Amarkosha (4th Cent. A.D.)**: In this Kosh Amalaki has four synonyms – Tishyaphala, Amandaki, Amrita, Vayastha.[8]

(A.K. Kanda-2/ Vanaushadhi Varg-4/ Shloka 57)

**2. Saushruta Nighantu (6th Cent. A.D.)-** In this Nighantu, Amalaki has been described in Mushkakadi gana. Karshaphala, Dhatri, Sidhuphala, Amandaki, and Tishyaphala are the synonym of it.[9]

(Sau.Ni /Mushkakadi gana/ Shloka144)

**3. Ashtanga Nighantu (8th Cent. A.D.)-** In Ashtanga Nighantu, Amalaki has been described in Parushakadi gana. It's synonym are described here - Koranga, Mriduphala, Dhatri and Shiva.[10]

**4. Dhanvantari Nighantu (10-13th Cent. A.D.)-** Amalaki has been placed in Guduchyadi varga and Vayastha, Vrishya, Jatiphala, Shivama, Dhatriphala, Shriphala and Amritaphala have been given as its synonym. Regarding its properties, it has been said as Kashaya, Katu, Tikta, Amla, Madhura in rasa & Shita in virya. It is indicated as Anulomana, Tridoshahara, Vrishya, Jvarahara and Rasayana.[11]

(D.Ni./ Guduchyadi Varga/ Shloka 211-213)

**5. Shodhala Nighantu (l2th Cent. A.D.)-** The following synonyms are seen in Shodhala Nighantu i.e. Dhatriphala, Shriphala, Amritaphala, Shivam, Vayastha, Vrishya, Jatiphalarasa, Shitaphala, and Varshaphala. It is mentioned in the "Guduchyadi varga".[12]

(So.Ni. / Guduchyadi varga / Shloka 233-234)

**6. Abhidhana Ratnamala (13th Cent. A.D.)-** Amalaki has been placed in "Amladravyaskandha" and Koranga, Vayastha, Amrita, Shiva, Kupandaka, Amritaphala, Vrishya, and Tishyaphala are synonyms given to it.[13]

(Abhi. Rt./ Amladravyaskandha / Shloka 11)

**7. Hridaya Dipaka Nighantu (13 Cent. A.D.)-** Nighantukara has placed this drug in Dvipada varga. The following synonyms are given in this Nighantu – Shringi, Dhatri, Amalaki and Shukti.[14]

(Hr. Ni./ Dvipada varga/ Shloka 68)

**8. Madanpala Nighantu (14th Cent. A.D.)-** Amalaki has been present in Abhayadi varga. Following are the synonyms of Amalaki - Dhatriphala, Amritaphala, Shriphala and Shivam. Regarding its properties, it has been said as Amla, Madhura, Kashaya in rasa, Ruksha in guna, Shita in virya and it is indicated in Vata –Pitta –Kaphavikara and Raktapitta roga.[15]

(M.Ni./ Abhayadi Varga/ Shloka 1/26-27)

**9. Raja Nighantu (14th Cent. Century A.D.)-** Amalaki is included in Amradi varga. Vayastha, Shriphala, Dhatrika, Amrita, Shiva, Shanta, Shita, Amritaphala, Jatiphala, Dhatriphala, Vrishya, Vrittaphala, Rochani and Sharabhuhavya are the synonyms of Amalaki are found in it.

Its Rasa has been mentioned as Kashaya, Amla, Madhura, Katu; and Shita in virya and indicated in Daha, Pittavikara, Vaman, Prameha, Shotha and Rasayana.[16]

(R.Ni./ Amradi varga / Shloka 158-159)

**10. Sarasvati Nighantu (14th Cent. A.D.)-** Amalaki has been placed in Mahavriksha varga and Dhatri, Svaduphala, Adhitaphala, Shiva, Amritaphala, Amandaki, Pancharasa and Rituvardhani are the synonym given to it.[17]

(Sa.Ni./ Mahavrikshavarga / Shloka38)

**11. Kaiyadeva Nighantu (15th Cent. A.D.)-** In this Nighantu, Amalaki is described in Aushadhi varga with following synonyms: Jatiphalarasa, Sidhurasa, Sidhuphala, Vayastha, Amritaphala, Tishaya, Tishyaphala, Amrita, Dhatri, Vrishya, Vrishyaphala, Divya, Radha, Dhatriphala, Shitaphala, Rasaphala, Shriphala, Shukti and Shivam. Regarding its properties it has been said as Kasaya, Amla, Madhur in rasa; Ruksha in guna and Shita in virya. Here Amalaki has been mentioned for various diseases like Daha, Pittavikara, Vaman, Prameha, Shotha and Rasayana. (Adi. Nir. Parushakadi gana / Shloka 51)

(K.Ni. / Aushadhi Varga / Shloka 235-240)

**12. Bhavaprakasha Nighantu (16th Cent. A.D.)-** Amalaki has been described in Haritakyadi varga and the following synonyms are found in this Nighantu- Vayasya, Vrishya, Jatiphalarasa, Shivama, Dhatriphala , Shriphala, Amritaphala, Dhatri, Trishyaphala and Amrita. Its propertis has been mentioned as Madhura, Kashaya, Amla in rasa; Shita in virya; Madhura in vipaka and Ruksha in guna. It is indicated in Shvasa, Kasa, Prameha, Arsha, Kushtha, Sotha, Krimi, Kamla, Grahani, Vishamajvara, Gulma, Adhayamana, Vrana and Chhardi.[19]

(B.P.Ni. / Haritakyadi Varga / Shloka 38 -40)

**13. Nighantu Adarsha (19 Cent. A.D.)-** In this book Nirukti has been given along with its synonym as Amalaki, Dhatri, Dhatriphala, Vayastha, Parvakita, Sadrasa and Tishyaphala. The rasa of Amalaki is Kashaya, Amla, Madhura, Katu; virya- shita; vipaka –Madhura and Doshaghnta- Kaphapittanashaka. It is indicated in Daha, Meha, Shopha and Rasayana. The part used are Phala and phalamajja. Amalaki is described under Amalakyadi varga.[20]

(Ni. Ad. / Amalakyadi Varga/ Shloka 38 -40)

**14. Priya Nighantu (20th Cent. A.D.)-** In this Nighantu, Amalaki has synonym as Dhatri. Regarding its properties, it has been said as Kashaya, Katu, Tikta, Amla, Madhura in rasa. It is Tridoshahara and indicated in Jvara, Amalapitta, Raktapitta, Prameha, Kshatakshaya, Shosharoga, and Panktishula.[21]

(P. Ni. /Haritakyadi varga / Shkloka 8-11)

Plants have been one of the important sources of medicines since the beginning of human civilization. There is a growing demand for plant based medicines, health products, pharmaceuticals, food supplements and cosmetics etc.

History of a drug can be studied under Vedic kala, Upanishad kala, Purana kala, Samhita kala, Nighantu kala and Adhunika kala. Present study revealed that by the help of literature i.e. Kosha and Nighantu, we may assess the therapeutic value of a drug very easily and take benefits by using them. Generally, vast therapeutic information has been coined in the Nighantu as authors used the prevailing and popular texts of their time and region for the basis to write them. This explains the emergence of more than one Nighantu during one period. This also explains the different rationale uses of the substances. The literature

offers a tremendous scope for research in order to explore the therapeutic applications of a substance in different regions and era, in the same manner. Amalaki was also a popular drug at that time. It has a tremendous effect on different diseases viz. Prameha (Diabetes mellitus), Medoroga (Obesity), Vrishya (Enhance fertility) , Rasayana (Rejuvenation), Chakshu-vikar (Eye disorder), Arsha (Haemarrhoid), Shotha (Oedema), Kushtha (Skin disorder) etc.

The Amalaki (*Emblica officinalis* Geartn.) is a deciduous, small or medium sized tree with crooked trunk and spreading branches, growing to a height of 10-15 meters though often shorter.

It is found both in wild and in cultivated form throughout the tropical India especially in Bengal, Assam, Konkan, Deccan, Carnatic and Western Ghats. The leaves are simple, a hundred or more in numbers in each branchlets ,small, sub-sessile, 10-13 mm by 2.5-3mm., distichous, light green, glabrous, narrowly linear, obtuse; imbricate when young and having the appearance of pinnate leaves. Stipules are minute, ovate and finely acute. Flowers many, unisexual (monoecious); very small, usually less than 3 mm. across, greenish yellow. Fruits are shiny, depressed, globose, obscurely 6 lobed. It is yellowish green, sub fleshy, dehiscent, six seeded drupe with waxy surface. The fruits vary from 1.3-2.5 cm in diameter. Each fruit is three celled and slightly six sided and ultimately slowly splits into three 2-valved two seeded cocci. Seeds are six in number, trigonous with thin but hard brownish crustaceous tests, fleshy albumin and flat broad cordate or truncate cotyledons. Amalaki is highly nutritious and could be an important dietary source of vitamin C, minerals and amino acids etc.[22] Immune activation is an effective as well as protective approach against emerging infectious disease. *Emblica officinalis* Geartn has been reported to inhibit chromium induced free radical production, and it restored the antioxidant status back to control level. It also inhibited the apoptosis and DNA fragmentation induced by chromium. It relieved the immunosuppressive effect of chromium on lymphocyte proliferation, and even restored the IL-2 and gamma-INF production.[23]

## CONCLUSION

Amalaki (*Emblica officinalis* Geartn.) is a plant with a rich Ethnobotanical history. The present review on Amalaki from different Nighantu can be useful to know about the different formulations of Amalaki in which different parts of the plant is used. By this way we can use Amalaki in the treatment of various diseases. Most of the Nighantu have mentioned that Amalaki has significant Prameha (Diabetese), Medoroga (Obesity), Vrishya (Aphrodisiac), Rasayana (Rejuvenating agent), Chakshuroga (Eye disorder), Arsha (Haemarrhoid), Kushtha (Skin disorder) etc. properties. In this regard, further researches are needed to carry out to explore Amalaki for its potency towards pharmacological properties and actions.

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