

Amla and Its Nutritional Properties: A Review

Shubham Patel¹, Nickhil C², Bhukya Jithender³, S. M. Kadam⁴

¹(M.Sc. Food Technology, Dept. of Food Technology, IBSBT, CSJM University, Kanpur, India)

^{2,3}(PhD scholar in Agricultural Processing & Structures, Central Institute of Agricultural Engineering, Bhopal, India)

⁴(PhD scholar in Food Science & Technology, SHUATS, Allahabad, U.P., India)

²Corresponding Author: nickhilc923@gmail.com

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Abstract: *Emblica phyllanthus* Linn. or Gaertn *Emblica officinalis* one of the most important medicinal plants in Indian traditional systems of medicine (Ayurveda, Unani and Siddha). It is commonly known as Indian gooseberry or Amla. It is a well-known fact that all components of amla are effective in the treatment of different diseases. Of everything, fruit is the most essential element. In the Indian system of medicine, Amla fruit is commonly used as a diuretic, laxative, liver tonic, refrigerant, stomachic, restorative, anti-pyretic, hair tonic, and preventive for ulcers and common cold, fever; as alone or in combination with other herbs. Major chemical constituents, including tannins, alkaloids, polyphenols, vitamins and minerals, were revealed in phytochemical studies on amla. Biological potency is found in gallic acid, ellagic acid, emblicanin A&B, phyllembein, quercetin and ascorbic acid. Amla studies show its analgesic, anti-tussive, antiatherogenic, adaptogenic, cardio, gastro, nephro and neuroprotective, chemopreventive, modulatory and anticancer radio and chemotherapy properties. Amla is also reported to have powerful free radical scavenging activities that are efficient in the prevention and treatment of various diseases such as cancer, atherosclerosis, antioxidant, anti-inflammatory, anti-mutagenic, immunomodulatory, Diabetes, illnesses of the liver and heart. This article provides some information about amla and its nutritional properties.

Keywords: Amla, neuro-protective, antiatherogenic, adaptogenic, anti-inflammatory, anti-mutagenic, immunomodulatory

I. Introduction

Amla is a small tree which is deciduous and found in Asian countries. With light grey bark leaves which are light green in colour, it grows mainly about 8-18 m in height. Amla is highly nutritious and is one of the best sources of vitamin C-extracted amino acids and minerals. A variety of chemical elements, such as tannins, alkaloids and phenols, are included. Almost all parts contain medicinal properties, particularly fruits which has been used in Ayurveda as a powerful rasayana to cure many of the ailments. It has a beneficial role in treating some big diseases like cancer, diabetes, liver disorder, heart problem ulcer, anaemia, its also has its applications in using as antioxidants, immunomodulatory, antipyretic, analgesic and gastro protective.

Table No: 1 Classification

Kingdom	Plantae
Subkingdom	Tracheobionta
Super division	Spermatophyta
Division	Angiosperma
Class	Dicotyledonae
Subclass	Rosidae
Order	Geraniales
Family	Euphorbiaceae
Genus	Emblica
Species	<i>officinalis</i>

Amla is one of the precious gift of the mother nature to the human. Fruits are rich source of Vitamin C, it also increases the red blood cell count and help to promote good health. It possesses the anti-inflammatory, antioxidant, Hepatoprotective and hypocholesterolaemia activities.

Vitamin C present in the amla is one of the main factors that can help to retrieve or refill the energy lost from the body. Many studies suggest that the fruit contains 28% of the total tannins distributed in the whole plant. As of the amla also contains the cooling nature it is common in use as a main ingredients in the treatment of burning sensation anywhere in the body.

Table No: 2 Physical and chemical properties of Amla

Content	Amount on percentage (%)
Protein	0.5
Fat	0.1
Mineral salts	0.7
Cellulose	3.4
Carbohydrate	14.1
Calcium	.05
Phosphate	0.02
Niacin/Nicotinic Acid	Traces/0.2mg/100g
Moisture	81.2
Iron	1.2mg

Calcium, phosphorus, iron, carotene, thiamine, riboflavin and niacin are included in their mineral and vitamin content. There is fixed oil, phosphatised and essential oil in the seeds. This tree's fruit bark and leaves are rich sources of tannins. Ellagic acid and lupeol are present in the roots and the bark contains leucodelphinidin.

II. Uses of Amla In Health Care and Nutrition Part

The plant is used in many ways in everyday life. The decoction and infusion of leaves and seeds is one of the most common uses. It is, however, often used as liquor, fixed and essential oils, as a powder and also as paste and pickles in confections. As an astringent extract, it is equivalent to catechu, which is prepared primarily by decoction and evaporation of roots. The fresh juice is acidic and the fruit is used mostly in combinations.

Aperients

The green fruits are used to make pickles and are preserved as the aperients.

Antimicrobial

Many medicinal studies and researches were conducted on amla extracts which proves it to be antibacterial, antifungal and antiviral agents.

Antioxidant

Amla is potent to scavenger of free radicle. It contains high levels of free radicles, superoxide dismutase (SOD) this property of amla fruits makes it to be a super fruit today. This fruit has twice the antioxidant strength of acai and about 17 times that of pomegranate with an ORAC (Oxygen Radicle Absorbance Capacity) value of 1770.

Boils and spots

The fruit pericarp is frequently used along with other components in decoctions and often added externally to boils with cow ghee to facilitate suppuration.

Chelating Agent

Skin photography is a complex biological process that affects different skin layers with substantial changes seen in the connective tissue within the dermis. Emblica has been shown to decrease UV-induced erythema and has an outstanding ability to chelate iron and copper as well as MMP1 and MMP3 inhibitory activity

Constipation

The fruit is occasionally pickled and preserved in sugar. When dry in condition it is said to be gently laxative. The fresh ripe fruit are used extensively in India as a laxative one or two fruits being sufficient for a dose.

Diabetes

The fruit is also use to treat diabetes and sometimes seeds are also used.

Diarrhoea

It is used medically for the treatment of the diarrhoea. As a fruit decoction it is mixed with

Fevers

Decoction extract of leaves is used to treat the fevers.

Similarly in many more diseases and problems like Gonorrhoea, hair growth, nausea, nose bleed, headache, Perfumery, purities, respiratory problems, indigestions, inflammations, mouth ulcers, Scurvy, shin sores and wounds, skin whitening, sore eyes and tonics the amla plant parts are very useful.

III. Conclusion

Today it is popular that food can be used as a medicine. Ayurveda is 5000 year old ancient Indian health science have mentioned the medicinal benefits of the foods and its nutrition properties. Amla is the wonder fruit. Highly esteemed from the point of view of national and great medicinal properties. Amla is considered to be the richest source of the vit c which is readily assimilated by the human system. It is one of the oldest medicinal plant as potential effects for the various ailments. It is one of the natural source of medicine which is safe and have no side effects. It can be concluded that the Indian Gooseberry is having a numerous health benefits hence its intake in any form is very vital for the right functioning of the body. Many researches were going on today as many foods are being used as the nutraceuticals and biopharmaceutical.

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