

Review Paper On : The Amazing Therapeutic Uses Of Ayurvedic Amla And Different Herbs

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Abstract:

Medicinal plants and their Phenolic compounds have drawn the attention of research scholars due to their considerable impact on human health .Fruit and Herbs has an important therapeutic role in the Ayurvedic and Unani systems of medicine. Fruit of *Embllica officinalis* are rich in Vitamin C, phyllaemblic compounds, gallic acid, tannins, flavonoids, pectin, and quercetin and also contains various polyphenolic compounds.Herbs have medicinal, aromatic, phototherapeutic properties. It is rich source of micro nutrient and phenolic compounds. Among medicinal plants, Amla ,Ginger and Mint have multiple health beneficial properties, anti-obesity,antimicrobial,anti-inflammatory,anti-diabetic,and cardioprotective effects, as a result of its antioxidant potential, combined with low toxicity and high efficacy.

Key Words: Therapeutic,flavonoid, antimicrobial, phytochemical,*etc.*

INTRODUCTION

Fruits are important sources of vitamins and carbohydrates. They are naturally sweet and low in calories. Different fruits contain different type of vitamins, so it is important to have a variety of fruits. Fruits are the important intake of our daily diet life. There is no cause of side effect by fruits because it provides necessary vitamins to our body. The vitamins are important to humans for providing energy to a way from various kinds of sickness.Today’s consumers expect more and more pleasure from food they want it be lower in fat, sugar and calories and to able to maintain an improve their health.Natural drinks provide numerous benefits to consumers as well as farmer. Plants have formed the basis of sophisticated traditional medicine system and natural product make excellent lead to for a new drug development. In worldwide approximately 80% of world Inhabitants lean on traditional medicine for their primary health care and play an important role in health care system of remaining 20% of population . The WHO is encouraging, promoting and facilitating the effective use of herbal medicine for the developing countries health program. The human race started using plants and plant products successfully as a source for treatment of disease and injuries as effective therapeutic tool from the early days of civilization to morden age.

Amla:Amla (*Embllica officinalis*) also known as Indian gooseberry is one of the traditional fruits indigenous to India and is considered as “Wonder fruit for health” Different researcher prove one

Kingdom: Plantae Division: Angiospermae
Class: Dicotyledonae Order: Geraniales
Family: Euphorbiaceae Genus: *Embllica*
Species: *officinalis* Gaertn.(R. Jain,*et.al.*,2015)

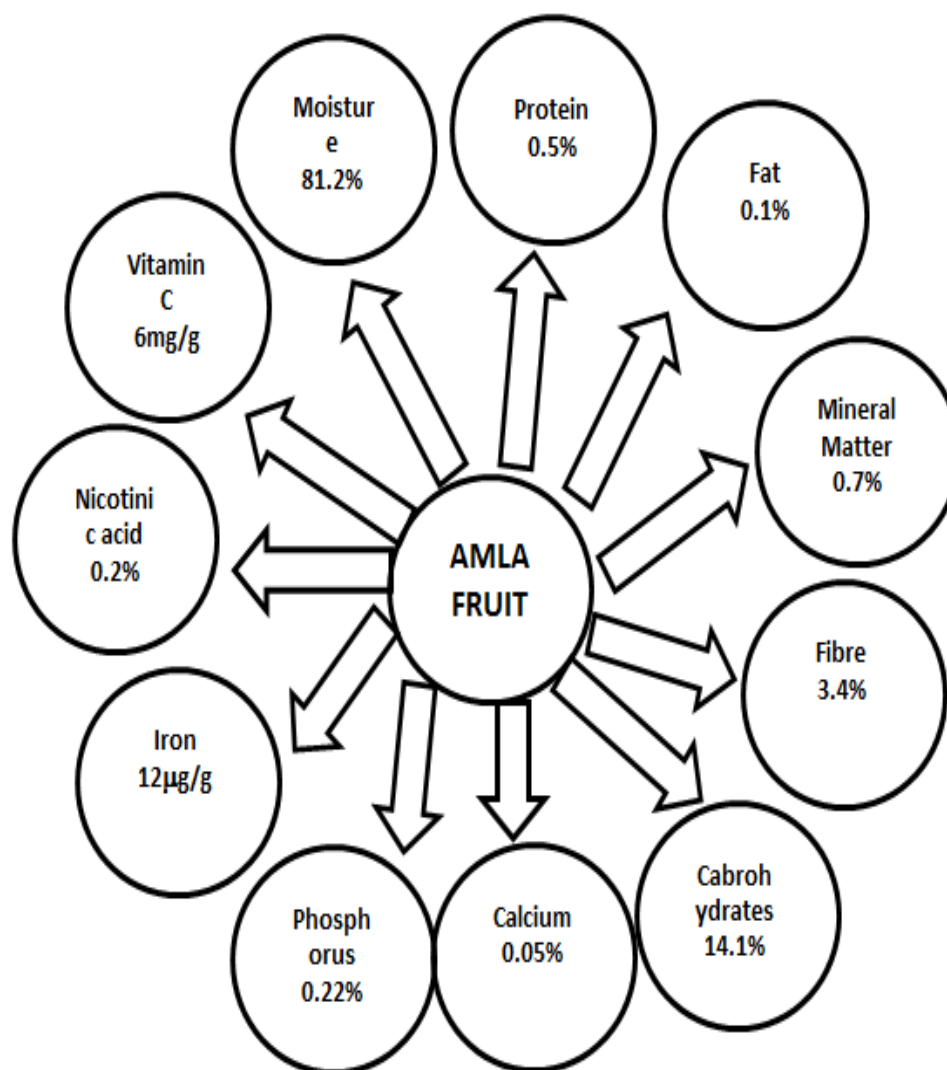
Pankaj Kulkarani,*et.al.*2017 studied as Indian gooseberry (*Embllica officinalis* Gaertn. Syn. *Phyllanthus emblica* L.) fruit commonly known as aonla is the oldest minor fruit of India. It belongs to the family *Euphorbeaceae* and is native of India, Srilanka, Malaysia, and China. The main varieties of aonla

grown in India are Banarasi, Chakaiya, Hathijhool, Bansi red, Pinki-tinged, NA7, Anand Aonla – II, Krishna, etc. The aonla gets ready for harvesting during November – January.

Various physico-chemical parameters (ascorbic acid, acidity, pH, TSS, total sugars, reducing sugar), microbial parameters (total plate count, coliform count, yeast and mould) and sensory parameters of aonla juice were recorded for characterization of fresh aonla juice. Ascorbic acid content of sample was determined by visual titration method.(Ranganna, S. 1986)

Table : Chemical composition of fresh aonla fruits as reported by researchers

Parameter	Source						
	Geetha <i>et al.</i> (2006)	Singh <i>et al.</i> (2006)	Sagar and Kumar (2006)	Vijayanand <i>et al.</i> (2007)	Goyal <i>et al.</i> (2008)	Contractor Range (2009)	
Moisture content, %	81.7	84.3	86.7	86.6	84.3	85.3	81.7-86.7
Acidity, %	1.87	1.3	3.20	3.00	2.24	2.05	1.3-3.2
Ascorbic acid, (mg/100g)	563.12	1295	420.00	298.00	571.6	440.92	298-1295
Reducing sugar, %	5.41	1.42	3.50	2.00	2.37	7.94	1.42-7.94
Total sugars, %	9.48	2.34	4.20	2.10	3.11	8.28	2.1-9.48
Tannin, %	-	3.4	2.90	1.80	0.55	0.97	0.55-3.4

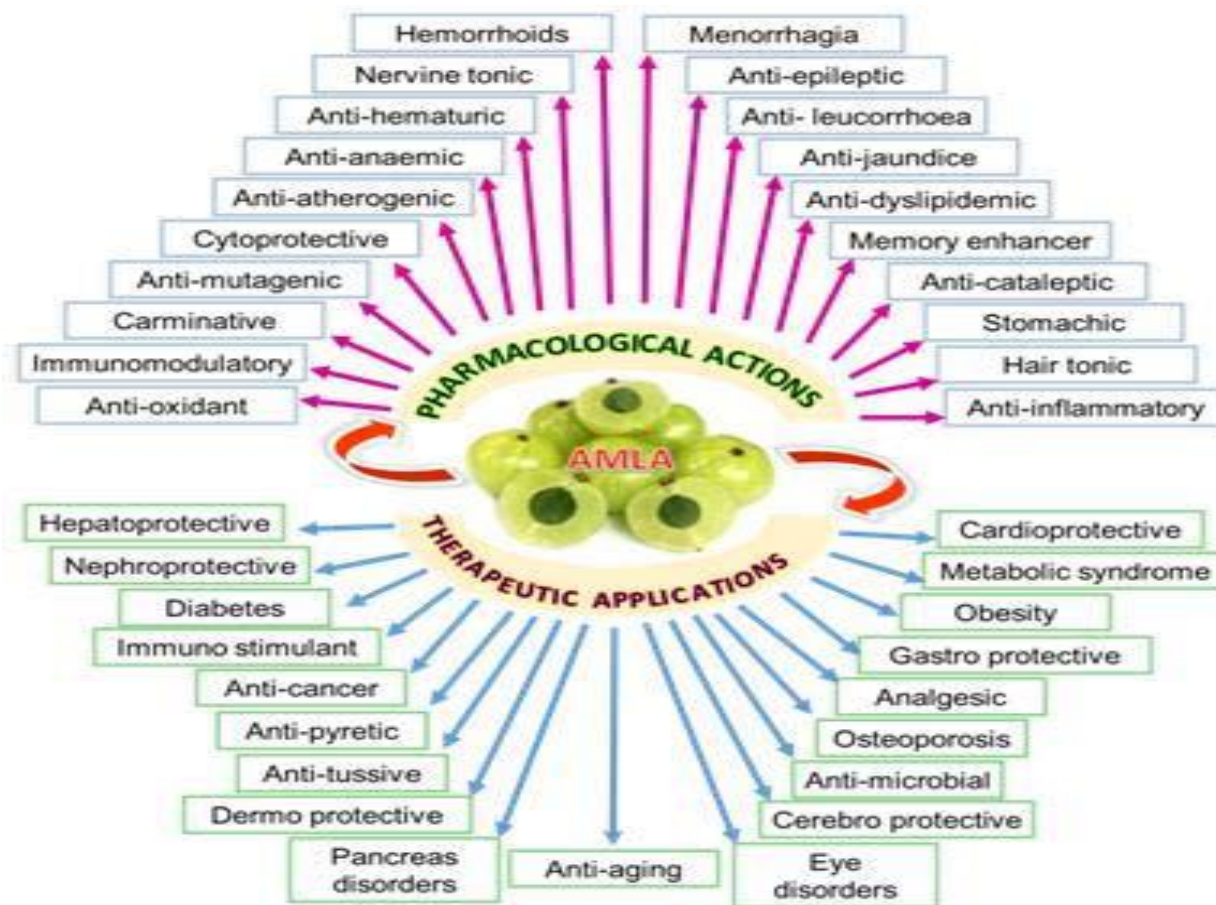


Amla: Proximate composition of amla

R. Jain, et al., 2015 reported that *Emblica officinalis* is a versatile plant due to its various medicinal properties. It is one of the oldest medicinal plant mentioned in Ayurveda as potential effects for various ailments. Fruit of *Emblica officinalis* are rich in Vitamin C, phyllaemblic compounds, gallic acid, tannins, flavonoids, pectin, and quercetin and also contains various polyphenolic compounds. A broad range of phytochemical components such as terpenoids, alkaloids, flavonoids, and tannins reviewed that it possesses antioxidant, anticancer, antitumor, antigenotoxic, and anticarcinogenic effects and other pharmacological or biological activities. It is considered to be a safe herbal medicine without any adverse effects. So it can be concluded that Indian gooseberry is a traditionally and clinically proven fruit for both its application and efficacy....

Swetha Dasaroju, et al. 2014 studied the phenolic compound, Amla is one of the most extensively studied plants. Reports suggest that it contains tannins, alkaloids and phenols.3 Fruits have 28% of the total tannins distributed in the whole plant. The fruit contains two hydrolysable tannins Emblicanin A and B,21 which have antioxidant properties; one on hydrolysis gives gallic acid, ellagic acid and glucose wherein the other gives ellagic acid and glucose respectively. The fruit also contains Phyllemblicin.22 Activity directed fractionation revealed the presence of several phytochemicals like gallic acid,

corilagin, furososin and geraniin.²³Flavonoids like quercetin, alkaloids like phyllantine and phyllantidine are found. Along with these, it primarily contains amino acids, carbohydrates and other compounds given in Table 1. Its fruit juice contains the highest concentration of vitamin-C (478.56mg/100mL). Vitamin C levels are more than those in oranges, tangerines and lemons.²⁴



Amla: Pharmacological actions and therapeutic applications (Swetha Dasaroju,*et.al.*2014)

Pankaj Kulkarani,*et.al.*2017 studied their value added product The fruit, due to its sour and astringent taste, has very limited table value. The fresh fruits are generally not consumed due to their high astringency but it has got great potential in processed forms. Aonla fruits are highly perishable in nature and hence its storage in atmospheric conditions after harvesting is very limited. The fruit is used in the preparation of various ayurvedic tonics like chavanprash, triphala, etc. However, aonla fruits are processed into a number of food products like preserve, jam, jelly, candy, toffee, pickle, sauce, squash, juice, RTS beverage, cider, shreds, dried powder, etc.

HERBS

Herbs are valuable for medicine and aromatic property. Thousands of year knowledge of herbs has been handed down from generation to generation. It gives pharmaceutical effect due to alkaloids and glycosides also rich in volatile oil gives pleasurable aroma. Oil effective against storage fungi ,bacteria ,insects and other harmful microorganism. The medicinal value of these plants lies in some chemical active substances that produce a definite physiological action on the human body. The most important of these chemically

active (bioactive) constituents of plants are: alkaloids, tannin, flavonoid and phenolic compounds. Many of these indigenous medicinal plants are also used for medicinal purposes. Phytochemicals like flavonoids, tannins, terpenoid, saponins are present.

Ginger:

Sripramote et al., 2003 studied Ginger is a subtropical plant grown for its root (rhizome or underground stem). The root has tan skin, ivory to pale green flesh, peppery, slightly sweet flavor. Ginger has many medicinal uses; the fresh or dried rhizome is used in oral or topical preparations for treatment a variety of ailments, while the essential oil is applied topically as an analgesic. Evidence suggests that ginger is most effective against nausea and vomiting in small animals, associated with surgery, vertigo, travel sickness and morning sickness and pregnancy, and cancer chemotherapy This study deals to summarized and review upon the use of *Zingiber officinale* by the different ethnic communities of India. This work is also an attempt to present and enlist the use zinger as ethnoveterinary meditational purpose by different communities of India as well as abroad. The authors hope that this review will be helpful in medicinal treatment of animals.

P. Singh et.al.,2018 reported their chemical nature Ginger (*Zingiber officinale*) is a flowering plant whose rhizome, ginger root or simply ginger, is widely used as a spice or a folk medicine. The primary known constituents of ginger root include gingerols, zingibain, bisabolene, oleoresins, starch, essential oil (zingiberone, zingiberole, camphen, cineole, borneol), mucilage, and protein. Volatile oils are bisabolene, cineole, phellandrene, citral, borneol, citronellol, geranial, linalool, limeonene, zingiberol, zingiberene, camphene), oleoresin,(gingierol, shogaol), phenol (gingeol, zingerone), proteolytic enzyme (zingibain), vitamin B6, Vitamin C, calcium, magnesium, phosphorus, potassium, linoleic acid, gum, starch, lignin, vegeto matter, asmazone, acetic acid, acetate of potassa, sulphur. The gingerol is the alcohol group of the oleoresin. Ginger owes its aroma to about 1 to 3% of volatile oils, which are bisabolene, zingiberene and zingiberol The major pharmacological activity of ginger appears to be due to gingerol and shogaol.

Jalal Bayati Zadeh,et.al,2014 evaluate the medicinal aspects Medicinal species: *Zingiber officinale*. Common names: Ginger, African ginger, Black ginger, Cochin ginger, Gan jiang, Gegibre, Ingwer, Jamaican ginger, Race ginger [4]. Botanical Family: Zingiberaceae. Ginger is closely related to two other cooking spices, turmeric and cardamom. Plant description: Ginger is a 2 - 4 foot tall perennial with grass like leaves up to a foot in length. It is the underground root or rhizome that is used for culinary and medicinal purposes. Where it's grown: Indigenous to warm tropical climates, ginger is widely grown in Asia, Africa, India, Jamaica, Mexico, and Hawaii. The present review sought to document and comment on the publications that have appeared on ginger and its constituents in the last 10 years or so. The papers reviewed provide another example of how it may be possible to explain the action(s) of folk medicines in terms of conventional biochemistry and pharmacology. Ginger and many of its chemical constituents have strong anti-oxidant actions. As several metabolic diseases and age-related degenerative disorders are closely associated with oxidative processes in the body, the use of either ginger or one or more of its constituents as a source of anti-oxidants to combat oxidation warrants further attention. Ginger and many of its chemical constituents have been shown, in numerous clinical studies, to be useful in combating postoperative vomiting and vomiting of pregnancy. It may be worthwhile investigating the effect of ginger on vomiting during cancer chemotherapy, as the crude drug and its constituents have themselves anti-cancer actions. More studies are also required on the kinetics of ginger and its constituents and on the effects of their consumption over a long period of time. Ginger is considered to be a safe herbal medicine with only few and insignificant adverse/side effects

Biological activities of ginger reported in literatures.

Active principles	Biological action	MOA	References
Gingerols, shogaols, Sesquiterpenes and monoterpenes)	For the treatment of nausea and vomiting	By anticholinergic and antiserotonin action	(Bryer, 2005)
[6]-gingerol	Anti-tumor property	inhibition of NF- κ B, stimulation of apoptosis and inactivation of VEGF pathways lead to antineoplastic effects	(Surh et al., 1998)
Gingerol and shogaol	Antiplatelet activity Hypotensive effects	lower platelet thromboxane X ₂ and prostaglandin E ₂ production, lowering blood pressure by inhibition of voltage-dependent calcium channels as well as by stimulating muscarinic receptors	(Nurtjahja-Tjendraputra et al., 2003) (Ghayur et al., 2005; Nicoll and Henein, 2009)
6-Shogaol	Anti-inflammatory effect Anticancer activities (e.g. breast cancer)	Inhibition of pro-inflammatory cytokines (IL-12, TNF- α , IL-1 β , IL-8) and chemokines (RANTES, MCP-1). inhibition of cell invasion reduction of matrix metalloproteinase-9 expression	(Penna et al., 2003) (Ling et al., 2010)

(Humayun Riaz,*et.al.*,2015)**MINT**

Aggaerwal Bharat B.*et.al.*,2009 Studied on *Mentha* (mint) is a genus of about 25 species (and many hundreds of varieties) of flowering plants in the family Lamiaceae (mint family). The word “mint” descends from the Latin word *menthe*, which is rooted in the Greek word *minthe*, mentioned in Greek mythology as *Minthe*, a nymph who was transformed into a mint plant. There are different types of mint including *Mentha aquatica* — water mint or marsh mint; *Mentha arvensis* — corn mint, wild mint, Japanese peppermint, field mint or pudina; *Mentha asiatica* — asian mint; *Mentha australis* — Australian mint; *Mentha citrata* — bergamot mint; *Mentha crispata* — wrinkled-leaf mint; *Mentha diemenica* — slender mint; *Mentha laxiflora* — forest mint; *Mentha longifolia* or *Mentha sylvestris* — horse mint; *Mentha piperita* — peppermint; *Mentha requienii* — Corsican mint; *Mentha sachalinensis* — Garden mint; *Mentha spicata* — *M. cordifolia*, spearmint, curly mint; *Mentha suaveolens* — apple mint, pineapple mint, and *Mentha vagans* — gray mint. Mint leaves are used in teas, beverages, jellies, syrups, candies, and ice creams. In Middle Eastern cuisine mint is used in lamb dishes. In British cuisine, mint sauce is popular with lamb. Mint is a necessary ingredient in Touareg tea, a popular tea in northern

African and Arab countries. The plant is commonly used as a herbal agent in the treatment of loss of appetite, common cold, bronchitis, sinusitis, fever, nausea and vomiting, and indigestion . Peppermint plants have been used as

KINGDOM: Plantae SUBKINGDOM: Tracheobionta

SUPERDIVISION: Spermatohyta

CLASS: Magnoliopsida (Dicotyledon)

ORDER: Lamiales FAMILY: Lamiaceae (Mint Family)

GENUS: Mentha SPECIES: Mentha x piperita

COMMON NAME: Peppermint (Bipin Khanal 2020)



Majid Tafrihi et.al. 2021 Reported the phenolic and functional activities. Mentha species have been used in indigenous medicine for many centuries and this review attempts to provide an overview on Mentha species' preventive and curative effects. The essential oils derived from Mentha species acts as a good expectorant and further have been used as a folk remedy for respiratory diseases such as bronchitis, sinusitis, tuberculosis and the common cold. Mentha species' exploitation in pharmaceuticals formulations requires further research. Likewise, clinical trials are scarce and intense efforts should be made to confirm the claims of efficacy in humans. However, numerous preclinical works have been performed, underlining the antioxidant, antibacterial, antifungal, anti-yeast, antiviral, and anticancer activity. Indeed, Mentha species, and especially essential oils, are used to reduce microbial load, suggesting a strong bactericidal, virucidal, and fungicidal activity. Nevertheless, some adverse effects, such as allergic reactions, vomiting, headache, flushing, heartburn and nausea hepatotoxicity, apnea and larygospasm, neuronal cell damage, may arise due to the presence of some compounds (carvone, limonene, menthol, pulegone) also depending on the Mentha extract concentration applied. Moreover, the presence of harmful compounds in plant such as pulegone and menthone can be reduced by oven-drying

or cooked before consumption in order to make it safer. In addition, care should be taken when this plant is consumed along with drugs which induce P450 enzymes.

Conclusion

In today's world of, fast pace living, hassle free, and health conscious people especially need of fruit and herbs in daily diet in specific amount, Several researchers revealed that various extracts and herbal formulations of amla and herbs showed potential therapeutic benefits against various diseases and the results are similar to standard drugs. In this review, we tried to make a summary the traditional and scientifically proven uses of Amla, Ginger, and Mint which is having antibacterial, ant carcinogenic, antiemetic, antiviral, antitumor, anti-cardio toxic properties which officious for treatment of diabetes, cancer arthrosclerosis, liver etc. Herbs have medicinal, aromatic, phototherapeutic properties. It is rich source of micro nutrient and phenolic compound.

This review article is based on current and past research done on the therapeutic effect of Amla , ginger and Mint for the various indications. It was found that Amla and Herbs is useful in many acute and chronic conditionsif we are taken in measurable amount in daily diet.

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