

## Emblica Officinalis's Function in Medicine- A Review

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### ABSTRACT:

Extracts from various sections of *E. officinalis*, particularly the fruit, contain multiple phytoconstituents, including a greater concentration of polyphenols such as gallic acid and ellagic acid, as well as various tannins, minerals, vitamins, amino acids, fixed oils, and flavonoids like rutin and quercetin. The extract or plant has been shown to be effective against a variety of conditions, including inflammation, cancer, osteoporosis, neurological problems, hypertension, lifestyle diseases, parasitic and other infectious diseases. These activities are related to either the control of multiple molecular pathways implicated in a variety of pathologies or the antioxidant property that protects cellular compartments from oxidative stress. However, much work is necessary in systemic research to discover, extract, and assess chemical elements for nutritional and medicinal potential.

**Key words:** Emblicaofficinalis,gallic acid, ellagic acid,rutin, hypertension,neurological problems.

### I. INTRODUCTION

Phyllanthusemblica Linn, also known as EmblicaofficinalisGaertn and a member of the Euphorbiaceae family, is a plant that was originally native to India but is now grown in Pakistan, Uzbekistan, Sri Lanka, Southeast Asia, China, and Malaysia. They are also called amla in Hindi, Malacca tree in English, and Indian gooseberry tree and emblicamyrobalans in colloquial language. The fruits have an oblong, obtusely triangular, six-celled nut and are yellowish green in color, globular in form, juicy, and smooth striated. The fruits are utilized in cooking and are frequently used as vegetables in different recipes as well as to produce pickles and chutneys.

Amla is a very nutrient-dense fruit that is rich in minerals, amino acids, and vitamin C. Numerous chemical components, including tannins, alkaloids, and phenols, are present in it. Out of all the hydrolyzable tannins, it has been revealed that ellagic acid, gallic acid, and embulanin A and B have biological activity. Almost all parts have therapeutic qualities, but the fruit is very useful. It has been used in traditional medicine to treat inflammation, jaundice, diarrhea, and many other conditions. It is also a potent rasayana in Ayurveda.4. In Indian medicine, amla fruit is commonly used either alone or in combination with other plants to cure fever and common colds, as well as to prevent ulcers and dyspepsia and to function as a diuretic, laxative, liver tonic, refrigerant, stomachic, restorative, and anti-pyretic.

Studies on the pharmacological effects of amla have shown that it has antitussive, anti-atherogenic, adaptogenic, cardio, gastro, nephro, neuroprotective, and anticancer qualities. Amla is also said to have anti-inflammatory, anti-mutagenic, antioxidant, free radical scavenging, radio, chemo, and immunomodulatory properties. Many illnesses, including cancer, atherosclerosis, diabetes, peptic ulcers, anemia, liver, heart, and other ailments, can be effectively prevented and treated using these qualities.

Through an emphasis on the processes behind the activities and an illumination of the therapeutic applications and clinical studies, the current work aims to comprehend the nutritional value, traditional usage, biochemical ingredients, and significant medicinal qualities of amla. Additionally, it provides an overview of the research conducted on amla during the last five years and identifies the areas that need for more investigation. [1,2]



Figure 1: Tree & Fruits of Amla

### Taxonomy

#### Taxonomical

**classification:** *Emblica officinalis* Gaertn. Syn.

*Phyllanthusemblica* Linn.

Kingdom: Plantae

Division: Angiospermae

Class: Eudicots

Subclass: Archichlamydeae

Series: Unisexuales

Order: Malpighiales

Family: Euphorbiaceae

Group: *Emblica*

Species: *Officinalis* Gaertn. [3]

#### Vernacular Names

Arabic: Amliy, Amlaj.

Assami: Amalaki, Amluki, sohmyrlain.

Bengali: Ambolati, Amla, Amalaki, Amlati, Amulati, Aunlah, Yeonlah.

Burma: Hziphyu, Shabju, Siphiyusi, Tasha, Zibyu, Ziphiyusi.

Cuttack: Alathanda

English: *Emblimyrobalan* tree

Gujarati: Amlī, Ambala, Ambri, Amla, Bhoza, Bhozzmali.

Hindi: Amalaci, Amla, Amlika, Anola, Anuli, anvula, Anvurah, Anwerd, Aonla, aungra, Aunra, Daula. Konkani: Anvallo, Dogranvalli, Dogranvallo.

Malayalam: Amalakam, Nelli.

Marathi: Anvala, Aonli, Avla, Arola, Bhuiawali.

Nepal: Amla.

Punjabi: Ambal, Ambli, Ambul, Amla, Aonla.

Sinhalese: Awusadanelli, Nelli, Nellika.

Tamil: Amalagam, Andakoram, Indul, Kattunelli, Nelli, Perunelli, Sirottam, Tattiri, Topunelli.

Telugu: Amalakamu, amalaki, Nelli, pullayusirika, Usirika, Usirikaya, Usiriki.

Tulu: Nelli.

### Botanical Description

Indian gooseberry is the popular name for *Emblica officinalis*. It is a member of the Euphorbiaceae family of plants. With a crooked trunk, spreading branches, and flaking grayish-green bark, this tree is modest to medium in size. Simple, subsessile leaves are arranged tightly along the branchlets, which are glabrous or faintly pubescent, 10–20 cm long, and typically deciduous. Like pinnate leaves, the leaves have a pale green color. Blossoms borne in axillary fascicles, the greenish-yellow blooms give birth to round fruit. Six trigonous seeds are contained in the thick, depressed, globose fruits, which have a diameter of one to two centimeters and six indistinct lobes. As they ripen, they are green, but when they're mature, they turn brick red or pale yellow.

In Indian medicine, leukorrhea, vomiting, and vata (which is linked to cold and can be exacerbated by chilling) are among the conditions that can be helped by the seeds' bitter and sweet taste, aphrodisiac qualities, and antipyretic effects. 16% of the brownish yellow oil that is produced by them has the following composition: 44% linoleic acid, 28.4% oleic acid, 4.8% linolenic acid, 2.2% stearic acid, 3.0% palmitic acid, and 1.0% myristic acid. Around 570 grams of seeds are weighted per 1000. The oil from the seeds looks like linseed. [4,5]

### Morphology

Standing 8 to 18 meters tall on average, the amalaki tree is a small to medium-sized deciduous tree with thin, light gray bark that exfoliates in minute, uneven flakes. 70 cm is the main stem's average girth. A little distance from the base, the main trunk is split into two to seven scaffolds. With their tightly spaced, pinnately arranged leaves, which measure 10–13 mm in

length and 3 mm in width, the branches simulate feathers. Blossoms are borne on leaf axils in clusters of six to ten and measure 4 to 5 mm in length. They are unisexual. Fruits are globose in form, meaty, and weigh between 5.3 and 5.7 g. Their diameter is 2.1–2.4 cm, and their volume is 4.5–5.0 ml.

**Amalaki Fruit:** Fruit has six vertical stripes or furrows, each carrying two seeds, often measuring 4-5 mm in length and 2-3 mm in width, and weighing between 572 and 590 mg. Fruit is fleshy, spherical, pale greenish yellow, glossy, and hard to the touch. Fruit characteristics of amalaki vary per variety in terms of weight, shape, and size. Distinct variations exist in the makeup of Amalaki variants.

**Leaves :**Amalaki leaves are sub sessile, distichous, narrowly linear, obtuse, and appear to be pinnate. They are also densely arranged along the branchlets.

**FLOWERS:** Blooms: Greenish yellow blooms with fimbriate bracts at the base are arranged in axillary fascicles on the leaf-bearing branchlets. These are frequently seen on the bare area underneath the leaves. Many male blooms on short, thin pedicels. Sepals 6: 1.2 mm long, oblong, obtuse. Three anthers on a short center column. Few, subsessile female flowers. Three-celled ovary with connate styles that erratically twice have sharp lobes at their base.

#### The fruiting season of Amalaki

Amalaki fruit has a protracted fruiting season. As a deciduous tree, Amalaki's new growth appears during the start of April. There won't be much of a quality or yield loss if the fruit is taken in December and left on the tree until March. Fruit harvesting typically takes place from January to March. The amalaki tree bears high loads, and the fruits are safe from raptors and untamed animals.[6].



Figure 2: Fruit, Leaves & Bark of Amla

#### Morphology & Microscopy :

**Macroscopic:** The drug is made up of curled pieces of dried fruit's epicarp and mesocarp that can be whole, separated into single segments that are 1 to 2 cm long, or united into 3 or 4 segments. The bulk color of the drug is grey to black, and the pieces exhibit a broad, highly shriveled, wrinkled exterior surface with a few whitish specks. Occasionally, some pieces may reveal a portion of the stony endocarp; these pieces are tough, cartilaginous, taste sour, and astringent, and their seeds and endocarp must be within the parameters specified for foreign matter.[7]

**Microscopic:** The pericarp of a fruit is shown in TS to have an epicarp made up of a single layer of epidermis, with cells that appear tabular and polygonal when viewed from the surface; cuticle present, a few tiny calcium oxalate rosette crystals in the epidermal cells, tangentially elongated parenchymatous mesocarp cells with irregularly thickened walls, and sporadic ramified vascular components with a large lumen are all present. Present pitted fibers with walls that seem sharp because of the pit canals extending into the lumen; alone or in small clusters toward the endocarp stone cells.[7]

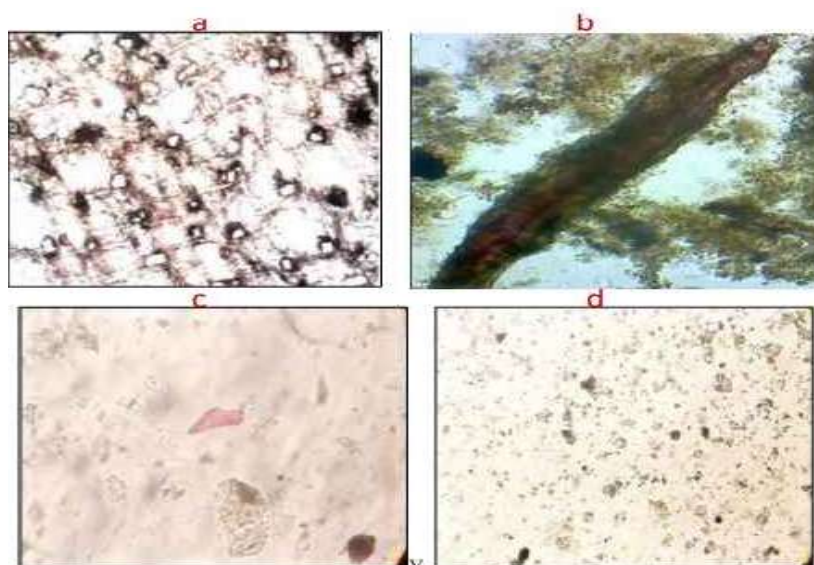


Fig 3: a]Lignified b]Prismatic Crystal c]Aleuronic Grain d]Cuticles e]Officinalls

**Table 1: Microscopical Characteristics of Powdered AmalakiFriut[8]**

| S.NO | Reagents                   | Observations | Characteristics            |
|------|----------------------------|--------------|----------------------------|
| 1    | Phloroglucinol + Conc. Hcl | Pink         | Lignified Vessels          |
| 2    | Dil. Sulpuric Acid         | White        | Calcium oxalate crystals   |
| 3    | Alcoholic Picric Acid      | Yellow       | Starch grains              |
| 4    | Sudan Red III              | Red          | Oil globules and cuticles. |

### Chemical constituents

#### Chemical Composition of Amalaki

Fruits include putranjivan A, phyllembin, phyllembic acid, gallic acid, emblicol, quercetin, hydroxymethyl furfural, ellagic acid, pectin, and two newly discovered hydrolyzable tannins known as emblicannin A and B.

Leaves :Alkaloids, Phyllatidine, Phyllantine, Gallic acid, Ellagic acid, Chebulic acid, Chebulagic acid, and Chebulinic acid are among the gallotannins found in leaves. Amalaki bark comprises tannin, ellagesic acid, procyanidine, and luteolphinidin.

The following are found in seeds: saturated fatty acids (7%), myristic acid (0.95%), linoleic acid, oleic acid, stearic acid (2.15%), palmitic acid (2.99%), linolenic acid (8.78%), and oleic acid (28.40%) tannin, proanthocynidin, and leucodelphinidin are found in bark.

Ellagic acid, o-acetyloleanolic acid, lupeol, and oleanolic aldehyde are the roots.

### Phytochemistry:

Vitamin C, carotene, nicotinic acid, riboflavin, D-glucose, D-fructose, myoinositol, and a pectin containing residues of D-galacturonic acid, Darabinosyl, D-xylosyl, L-rhamnosyl, D-glucosyl, Dmannosyl, and D-galactosyl, as well as embicol, mucic, indole acetic acid, and four other auxins— a1, a3, a4, and a5—are all present in amalaki. Phyllembic acid and phyllembin (fruits) and fatty acids (seed oil); leucodelphinidin, procyanidin, 3-O-gallated prodelphinidin, and tannin (bark); ellagic acid, lupeol, oleanolic aldehyde, and O-acetyl oleanolic acid (root); tannins, polyphenolic compounds; 1, 2, 3, 6 - trigalloyl glucose, terchebin, corialgin, ellagic acid, alkaloids, phyllantidine, and phyllantine[9,10]

### Traditional medicinal use

Fresh and dried fruits of the plant are utilized in traditional Indian medicine. The fruit, seed, leaves, bark, roots, and flowers of the plant are all utilized in the many herbal remedies used in Ayurvedic medicine. Ayurvedic medicine states that the amla fruit has three primary tastes

(anurasas): sweet (madhura), bitter (tikta), and pungent (katu). It also has an astringent (kashaya) and sour (amla) initial flavor (rasa). Its attributes are light (laghu) and dry (ruksha), its energy (virya) is cooling (shita), and its postdigestive impact (vipaka) is sweet (madhura). Indian gooseberry appears often in Ayurvedicpolyherbal compositions; it is the main element of an old herbal rasayana known as Chyawanprash, among other uses.[11]

### Health Benefits of Amalaki (amala)

#### Improved digestion:

The Indian gooseberry, or amalaki, is good for your digestive system. It aids in the treatment of constipation because of its cleaning characteristics.

Additionally, it works incredibly well to balance the levels of stomach acid. Thus, using amla powder on a daily basis might help control issues like gas and bloating.

Amalaki is full of nutrients and energy-giving vitamins, including A and E, iron, calcium, and dietary fiber. The amla's vitamin C content makes it easier for the body to eliminate waste. The body uses these vitamins and minerals to aid in a healthy food absorption process.

#### Heart Support:

It supports a normal blood and nutrient flow across the body, sustaining and nourishing your bodily tissues. A natural detoxifier is amla powder. Along with promoting proper nutritional absorption and delivery, it cleanses the blood.

Amalaki is also a fantastic way to raise blood hemoglobin levels. The transmission of carbon dioxide and oxygen is accomplished by hemoglobin. Thus, elevated hemoglobin levels correspond to elevated blood oxygen levels.

#### Liver:

Because of its vitamin C content, amla is excellent for your kidneys and liver.

Amla is an excellent natural antioxidant and anti-inflammatory for your liver.

It speeds up metabolism and aids in the body's proper regulation of fats.

#### Immunity:

It strengthens your immune system, your body's protection mechanism. It supports your defenses against illness. The elimination of pollutants cleanses the body and enhances nutritional absorption. Your body will get healthier

and stronger as a result of receiving more nutrients. Additionally, these toxins weaken your immune system, therefore it's critical to get rid of them for optimal bodily operation. Hence, eating amla fortifies your immune system and shields you from a variety of illnesses.

#### Preventing diseases

Eating amla aids in the body's elimination of ama, or poisons. Toxins, or Ama, build up in the body and invite a host of illnesses. Thus, consuming moderate amounts of amla in your diet will maintain your health. Amla can also be used to control blood sugar levels. Individuals with diabetes, in particular, should include amla in their diet. It enhances insulin resistance and reduces blood sugar levels. Amla is highly beneficial for controlling the body's cholesterol levels.

#### Bone and Joint Health:

Amla has been shown to have strong bones and joints in addition to its purifying properties. Your joints will benefit greatly from either consuming amla or using amla oil. Massages using amla oil help babies' bones stay strong and healthy. To enhance its effects, amla oil can be blended with other traditional oils.

#### Eyes:

Amla is a highly powerful eyesight enhancer. In Ayurveda, it's called "chakshushya," which translates to "the one strengthening the eyes." Amla is a popular supplement for enhancing eye health since it is high in vitamins and minerals. It is a beneficial eye tonic.

#### Skincare& Hair care:

Another advantage of amlais to include it in your dietfor healthy& radiant skin. Your blood will become cleaner because to amla's antioxidant qualities. A body with good blood is inherently healthy, and a body that is healthy will have glowing skin.

Amla is also incredibly beneficial to the health of your hair. Hair oils and masks made from amla provide your hair with the necessary nutrients, thus they are quite useful.

It will restore your hair's natural shine and moisture balance.

It's helpful for blackening hair as well.

### Dental health:

Amla powder makes excellent toothpaste. It can also be added to pastes that are used for tooth brushing and cleaning. Your mouth feels cleansed and revitalized. One of the finest methods to improve dental health is by oil pulling, according to Ayurveda. Amla oil works incredibly well for oil pulling. It improves the condition of your teeth and gets rid of pollutants.

### Preventing aging:

Consuming amla on a daily basis might make you appear younger than you actually are. Your general health is enhanced by it. It prolongs your life and improves your physical well-being.

Additionally, it increases your flexibility and strength. It further aids in maintaining a healthy weight.

Your body's energy flow is also enhanced, which promotes spiritual development. It allows your thoughts to become more relaxed. It can ease your tension. Because it is a sattvic meal, it improves your body's harmony and balance. The main advantage of amla, is increased alertness. Additionally, amla is a highly effective medication for people suffering from anxiety, stress, and hypertension. Amla is incredibly beneficial for enhancing wellbeing and health. It is also among the essential components of triphala. Three plants is the translation of the Sanskrit term triphala. Amalaki, bibhitaki, and haritaki make up this mixture. [11]

### PHARMACOLOGICAL ACTIVITY:

#### Adaptogenic activity :

The plant has been investigated for a variety of pharmacological activities; in this case, fruit extract is to be screened for adaptogenic activity [12]. To test the extract's antistress properties, wistar rats were put through acute physical stress (forced swimming endurance stress). Stressful situations cause changes in plasma glucose, triglycerides, cholesterol, SGPT, and SGOT when the hypothalamic pituitary adrenal axis is stimulated. Additionally, blood cell counts and locomotor activity are altered. The acute stress model's stress-induced changes in these biochemical levels and blood cell counts were dramatically reduced by pretreatment with extract.

#### Hepatoprotective Activity:

This study was conducted to investigate the hepatoprotective properties of EmblicaOfficinalis fruit extract on albino rats that

had been exposed to carbon tetrachloride-induced hepatotoxicity. 90% ethyl alcohol was used in the percolation process to prepare the necessary quantity of fresh fruits of EmblicaOfficinalis. Based on OECD 423 recommendations, oral toxicity testing was conducted. After seven days, the body weight of every animal included in the experiment was assessed and they were all maintained under close monitoring for daily food consumption. Using an intragastric feeding tube, the medications were given to the animals at a dosage of 200 mg/kg/body weight. Over the course of 14 days, the experiment was conducted.[13]

#### Anti-Bacterial Activity [14]:

In this work, eight pathogenic cultures were used to test the antibacterial activity of aqueous Phyllanthusemblica fruit extract (APE), and its potential for green manufacture of silver nanoparticles was examined. The antibacterial activity of APE was assessed using the agar well diffusion test after it was screened for the presence of phytochemicals. By using the macro dilution approach and the minimum bactericidal concentration (MBC), the minimum inhibitory concentration (MIC) was measured. It was discovered that, at different doses, the zone of inhibition (ZOE) for APE ranged from 10.7 to 21.3 mm. A 50% (v/v) APE concentration was shown to be capable of killing 75% (6/8) test cultures, according to the MBC values, whereas the MIC values fell between 12.5% and 50% (v/v).

#### Anti-Hyperlipidemia, Hypolipidemic and AntiAtherosogenic Activiy [15]:

The goal of the current study was to assess the fruit of EmblicaOfficinalishypolipidemic and anti-atherosogenic properties in albino rats with excessive body fat. for the investigation of hypolipidemic, antiatherogenic, and anti-hyperlipidemic properties. For eight weeks, five groups of six mice each were given a high-fat diet, a high-fat diet with E. officinalis powder, normal saline, and atorvastatin, respectively. When the trial came to a conclusion, blood samples from the animals were submitted to estimate the lipid profile and examine the effects of the test medicine by comparing the levels of HDL, LDL, total cholesterol, triglycerides, and atherosogenic index.

#### Anlagesic Effect [16]:

In this work, rats with plantar incisions (PI) and sparing nerve injury (SNI) pain models were used to determine if E. Officinalis extracts had any analgesic effects. Von Frey filaments were

used to assess the mechanical withdrawal threshold (MWT), and ultrasonic vocalization was used to assess pain-related behavior following surgery. At 6 and 24 hours following the PI, the group treated with 300 mg/kg of *E. Officinalis* extracts exhibited considerably higher MWT values and significantly less 22–27 kHz USVs. Additionally, the group that received continuous therapy with *E. Officinalis* extracts for 15 days demonstrated a considerable reduction in pro-inflammatory cytokine levels and a significant alleviation of SNI-induced hypersensitivity.

#### **Anti-Inflammatory Activity [17]:**

*EmblicaOfficinalis*hydroalcoholic extract's (HAEO) anti-inflammatory properties were examined in this study. Histamine, carragenan, prostaglandin E<sub>2</sub>, and serotonin injections subplantarily caused acute inflammation in rats, whereas cotton pellet granulomas caused persistent inflammation. At all tested dosages (300, 500, and 700 mg/kg), intraperitoneal treatment of HAEO substantially ( $P < 0.001$ ) prevented the development of granulomas and rat paw edema against all pathogenic agents. Measurements of HAEO's antioxidant activity in paw tissue also revealed that HAEO considerably ( $P < 0.001$ ) raised the activity of catalase, superoxide dismutase, and glutathione, which in turn decreased lipid peroxidation as shown by a decrease in malondialdehyde.

#### **Anti-Microbial and Anti-Oxidant Activity [18], [19]:**

The current investigation was conducted to assess the antibacterial and antioxidant properties of *EmblicaOfficinalis* juice powder in vitro. The agar well diffusion technique was utilized to evaluate the antibacterial efficacy against both gram positive and gram negative microorganisms. The hydrogen peroxide scavenging activity technique was used to test the powder's antioxidant activity in vitro. The Folin-Ciocalteu technique was also used to calculate the total phenolic content. Antibacterial and antioxidant activities were found in the study's results.

#### **Immunostimulatory Activity [20]:**

Examine in a BALB/c mouse model the immunological effectiveness of *P. emblica*'s anti-aging actions. also to confirm the safety of *P. emblica* infusion ingestion in BALB/c mice. YAC-1 (mouse lymphoma) cells, human umbilical endothelium cells, and fibroblasts were compared

to the proliferative activity of mouse splenocytes for in vitro experiments after they were infused with *P. emblica*. In the course of in-vivo research, *P. emblica* infusion was given orally to mice for 14 days at a dosage range of 0,50,100, and 200 mg/kg B/W. The proliferative and NK cell activity were assessed in the splenocytes obtained from these animals post-treatment.

#### **Anti-Oxidant and Anti-Tumor Activity [21],[22]:**

The goal of the current study was to look into *PhyllanthusEmblica*'s anti-tumor and antioxidant properties. Using the FRAP test technique and the DPPH (1, 1 diphenyl, 2picrylhydrazyl) scavenging assay, the antioxidant capacity of the edible plant was assessed in vitro. For *PhyllanthusEmblica*, the DPPH standard solution decreased by 71.5%. Using the MTT test, the cytotoxic impact was assessed against the cancer cell lines HT-29. *PhyllanthusEmblica* has more potential for cytotoxic action against HT29 cell lines, to sum up.

#### **Anti-Diarrheal Potential [23]:**

Several experimental types of diarrhea in wistar albino rats were used to assess the anti-diarrheal activity of the methanol extract of the fruit of *EmblicaOfficinalis*Gaertn. In studies using charcoal meals, rats' gastrointestinal motility was significantly reduced by the methanol extract. Additionally, compared to control mice, it greatly reduced PGE<sub>2</sub>-induced entry pooling. Based on its inhibitory effect on both gastrointestinal propulsion and fluid secretion, the results show that the methanol extract of *EmblicaOfficinalis* has strong anti-diarrheal action.

#### **Chondroprotective Activity [24,25]:**

The chondroprotective activity of *P. emblica* fruits was tested in vitro in this study. They employed powders generated by hot water extraction and drying of powder A (powder B) as well as aqueous extracts of unprocessed *P. emblica* fruit powder (powder A). Three separate test systems were used to quantify chondroprotection. Type 1 they examined how the two fruit powders affected the hyaluronidase and collagenase enzyme activity. Explant cultures of articular knee cartilage from individuals with osteoarthritis were used to create Type-2, an in vitro model of cartilage deterioration. The in vitro activities of hyaluronidase and collagenase type 2 were considerably reduced by the aqueous extracts of both fruit powders. Type-3 extracts of glucosamine

sulphate and powder B (0.05 mg/ml) demonstrated statistically significant long-term chondroprotective efficacy in the explant model of cartilage matrix injury.

#### Anti-Ulcerogenic Activity [26,27]:

Patients with ulcers and dyspepsia see a considerable reduction in symptoms such as blenching, fullness, heartburn, nausea, and vomiting while using *EmblicaOfficinalis*. Prokinetic effects are seen in both the aqueous extract and the dry powder. When taken at lower doses, the dry powder has pro-kinetic effects; nevertheless, at the patients' maximal acid output

#### InDyslipidemia [28,29]:

The goal of the study was to standardize amalakichoorna as a dietary supplement while taking into account the active ingredients that give it its hypolipidemic properties.

## II. CONCLUSION:

For thousands of years, plants have been essential to human health and well-being. They are also excellent sources of flavoring, drinks, cosmetics, medications, and other household goods. Since ancient times, plants have been utilized in medicine. One of the earliest Vedas, the Rigveda, mentioned using plants as medicine. Ayurveda and other traditional medical schools have extensive documentation on therapeutic plants. The CharakaSamhita records around five hundred plants of vegetable origin, whereas Sushruta lists 573 plants in the SushrutaSamhita. These herbs are still effectively utilized to cure a variety of illnesses. The fundamental notions proposed by ancient academics govern the utilization of the plants. These plants are said to have a multitude of pharmacological properties. There are also literary quotations on amazing and miraculous flora. These plants do, however, need further pharmacological and taxonomic research. "Pharmacognosy" is the identification of medications based on their whole composition, habits, methods of production, methods of procurement, characteristics both small and large, physical and chemical, etc.

Fruit of *EmblicaofficinalisGaertn* has pharmacognostical criteria established in the current investigation. In *EmblicaofficinalisGaertn*.fruit powder microscopy, revealed lignified tissues, Aleurone grains, and prismatic silica crystals.

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