Ayurvedic Drugs
Used In Eye Disorders
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Human Eye is Organ of Vision which gives us the sense of sight allowing us to learn more about the surrounding world than we do with any of the other four senses. Hence it has become important to protect the organ of sight i.e Chakshu, which is achieved through Rasayana therapy.

According to Bhavaprakasha
- चाक्षुष्यं बृहणं वृष्ण्य भेषजं तद्दायनम्

There are much more topics in our Ayurvedic classics about which we have limited knowledge. Like this another topic is Chakshushya dravya. Various Chakshushya dravyas are described in Ayurvedic literature both in Brahtrayi and Laghutrayi. Bhavaprakash Nighatu is one among the three samhitas of laghutryi. This nighantu mainly deals with Dravyaguna. The reason behind choosing Bhavaprakash nighatu for the study is its karmapradhanta. Two types of Chakshushya dravya are described in this nighantu, one is Chakshu-hitakara i.e. benificial for eyes and other one Chakshu-rogaharai.e. used for treating eye disorders.

How these Chakshushya dravyas are doing their work on Chakshur indriya or their adhisthan is not mentioned by any author. Here in present article, we will attempt critical analysis on Chakshushya dravyas and their line of action on the basis of Rasapanchak. Ayurveda is the science of life, which includes eight branches: Kayachikitsa (Internal Medicine), Balaroga (Pediatrics), Graharoga (Psychiatry), Urdhwang chikitsha (ENT, Ophthalmology), Shalyatantra (Surgery), Danshtra (Toxicology),
Jara (Geriatric Medicine), and Vrisha (Aphrodisiac). In Ayurveda, Ophthalmology is the branch in developing phase Chakshushya dravya is very important and interesting topic in Shalakyatantra. Before starting, first we take the word Chakshushya. Chakshu means Darshanendriya Chakshushya means chakshushehitah shyaat, chakshushe lochanay hitam i.e. beneficial for eyes. Dravyaguna is the branch of Ayurveda related with the medicine of Herbal origin. So Chakshushya dravya means various herbs mentioned in Ayurveda used for benifit of eyes. Most of the herbs in Ophthalmology are described under the heading of Netrya and Chakshushya dravya. There are so many dravyas coming under this heading according to Brihatrayi, Laghutrayi and other authers. Here in this article, we will mainly discuss only those Chakshushya dravya told by Bhavaprakash. Bhavaprakash nighantu is an important nighantu of Dravyaguna. Nighantus are collections of information regarding different medicinal plants and their properties. On doing brief study of this nighantu, we found that Bhavamishra described Chakshushya dravya as Chakshushya, Netrya Netrahita. All of these are Netrahitakara i.e. benificial for eyes. Some dravyas are also coming in the knowledge which can be grouped as Netrarogahara i.e. used for treating eye disorders. Bhavamishra had not described anything about their kaarmukata i.e. their mode of action. Here we will discuss the mode of action of Chakshushya dravyas on the basis of Raspanchak. Chakshu is the chief site of Teja Mahabhuta and it remain there in the form of Alochak Pitta, and it is evident that the main opponent for Chakshu is Sleshma or Kapha. The function of Chakshu indriya is done by alochak pitta. So exposure to all Shita virya dravyas and condition should be avoided because they will vitiate the kapha. Ushna virya dravyas should be good for Chakshu. But this is not so simpleas it looks. Virtually, Pitta causes Indriya balahraas due to its aadankaarak property while kapha is indriya balavraddhikarak due to its visargakarak quality. Both these things dseen contrary to
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each other. We will discuss on this controversy in forth coming pages. First we will see the Bhavaprakshokta Chakshushya dravya in brief. 5From historical point of view it is evident that Ayurvedic drugs and procedure based therapies are exceedingly used in alleviating wide range of ocular conditions. Shalakya-tantra-the core engrossing specialty of Ayurveda, deals with management of ocular illness and has been significantly contributing to the eye care. Tremendous advancement made in ophthalmic medicine in recent years has begun a new era in the history of ophthalmology. Modern ophthalmologists and scientists have been able to convince the new generation about the significance of eye care and the right procedures to follow in order to ensure healthy vision. At the same time, there are various challenging problems, arising before modern ophthalmologists compelling them to tread the virgin fields of medical knowledge hidden in ancient medical manuscripts. Many are aware of various eye ailments and remedies. But the impact of Ayurvedic treatments for these ailments is yet to be recognised by both medical fraternity and the public in general. One such Ayurvedic ocular therapeutic is Kriyakalpa. Ayurvedic literatures recount potential ophthalmic drugs for the management of surface inflammatory conditions of eye such as dry eye syndrome (DES) or Keratoconjunctivitis Sicca (KCS). The plant drugs such as Berberis aristata DC. and Glycyrrhiza glabra Linn. Are attributed with potential anti-inflammatory, anti-allergic and wound healing activities backed by scientific evidences. The importance of the eyes was underscored in Ayurveda by quoting eye as the most important of all organs: “Sarvendriyanam Nayanam Pradhanam” i.e. eyes hold special status among all the sense organs. Eyes are the most precious gift of the God to the living beings. Good vision is crucial for social and intellectual development of a person. Ayurveda the fountain head of Indian medicine was conceived as a science and preached in the country
some thousands of years ago, long before the other countries could dream of systematizing the concept of remedies for human ailments. *Shalakya Tantra* is one among 8 specialties of *Ashtanga Ayurveda*, which deals with the diseases occurring above the clavicle. So it mainly deals with the sense organs; disease affecting them and their management. *Acharya Nimi* is considered as the expounder of this branch of *Ayurveda*. His viewpoint on the subject of *Shalakya* is presented in first 26 chapters in *Uttar Tantra* of *Sushruta Samhita* wherein 19 chapters hold the Anatomy, Classification, Pathophysiology of diseases and their treatment, which reflects the importance of ophthalmology since ancient time. Eye is perhaps the only organ in the body whose anatomy, diseases and their treatment are detailed vividly and systematically in *Ayurvedic* literature. *Ayurveda* is the most ancient medical system with an impressive record of safety and efficacy. There is a growing recognition, nationally and internationally, of the need for incorporating the contributions of these systems of health knowledge into the dominant one to meet the limitations of modern medicine. *Ayurveda* offers comprehensive safe and effective approaches to manage eye disorders. Abysmally, several traditional aboriginal ophthalmic practices have been fundamentally dilapidated for want of tangible evidence on safety and efficacy; call for scientific research and validation. *Ayurveda* portray distinct concepts and principles of management of eye diseases and efforts being made to generate evidence efficacy of its approaches. Certain clinical studies could able to generate scientific evidence on efficacy, extent of use, and effectiveness of drugs and therapies for surface lesions of the eye, allergic conditions, refractive errors well as neuro-ophthalmic conditions such as Age Related immature Cataract, Chronic Simple Glaucoma, Diabetic Retinopathy, Retinitis-Pigmentosa, Age related Macular degeneration, Dry Eye Syndrome, Abnormal Involuntary Movements of Eye, Pain management in ocular conditions.
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Myopia, Allergic Conjunctivitis, Viral Conjunctivitis, Simple conjunctivitis. Further the ‘caksusya–rasayana’ (preservation and promotion of ocular health) approach of Ayurveda certainly provide safe and clinically effective ophthalmic drugs having diversified effects may be judiciously used to tackle intractable problems of the eye

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Amalaki

Introduction

Amalaki fruit is one of the richest natural sources of vitamin C, containing approximately 20 times the vitamin C content of an orange. Its antioxidant effects explain its traditional use as one of the best rejuvenative tonics (rasayana) in Ayurvedic medicine particularly for Pitta Dosha. The main constituents of Amalaki include ascorbic acid, fatty acids, bioflavonoids, polyphenols, cytokinins, B vitamins, calcium, potassium, iron, tannins, and pectin. Its list of actions is really quite impressive. Not only is it a rejuvenative and antioxidant, but it is also hepato protective, lowers cholesterol, an excellent anti inflammatory, laxative, diuretic, and hypoglycaemic remedy. From an Ayurvedic perspective the healing properties of Amalaki extend to all tissues (dhatus) and it has the ability to increase Ojas, meaning that it enhances energy, immunity, fertility and joie de vivre. It helps to balance all three doshas particularly Pitta and Vata. Amalaki is in fact an excellent herb for the immune system. It has been shown to slow development and growth of cancer cells probably through its ability to enhance natural cell mediated cytotoxicity. It has antimicrobial properties and is used as an antiviral for colds and flu. Constituents of Amalaki have been found to be active against a range of organisms including Staph. aureus, E. coli, C. albicans, Mycobacterium tuberculosis and Staph. Typhosa. With its cooling effects, Amalaki is used for a variety of inflammatory conditions of the GI tract, ulcers, acidity, nausea, vomiting, gastritis, colitis, hepatitis and haemorrhoids. The leaf infusion with fenugreek seeds is given in India for chronic diarrhoea and acute bacillary...
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dysentery is treated there with a syrup of Amalaki and lemon juice. As an ingredient of Triphala, Amalaki is used as a bowel tonic to clear toxins from the bowel, for chronic constipation and IBS. Its antioxidant properties help protect the liver. Amalaki has been used traditionally for diabetes as it has a reputed hypoglycaemic effect. The Amalaki plant is its Sanskrit name. It has others. It is called Indian Gooseberry in English, Amla in Hindi and Emblica Officinalis Gaertn, Phyllanthus Emblica or Terminalia Emblica in Latin. Amalaki is revered in several traditional Vedic festivals. In the texts of the Puranas, it is referred to as Divaushadhi, which means it is a divine plant, or divine ayurvedic medicine. It contains five of the six ayurvedic tastes: sweet, sour, bitter, astringent and pungent. The only taste missing is salty. This mix of flavors gives it a holistic, balancing effect on the Doshas It is tridoshic, which means that it is pacifying to all three Doshas. In traditional Indian medicine, dried and fresh fruits of the plant are used. All parts of the plant are used in various Ayurvedic Unani medicine (Jawarish amla) herbal preparations, including the fruit, seed, leaves, root, bark and flowers. According to Ayurveda, amla fruit is sour (amla) and astringent (kashaya) in taste (rasa), with sweet (madhura), bitter (tikta) and pungent (katu) secondary tastes (anurasas). Its qualities (gunas) are light (laghu) and dry (ruksha), the postdigestive effect (vipaka) is sweet (madhura) and its energy (virya) is cooling (shita). The study showed that Amalaki is possessing various pharmacological properties. According to Ayurveda it is Tridoshghna, Rasayan, Vaysthapan, Shophaghna, Raktpittaghna, Pramehghna, Arshghna, Vrushya, Chakshushhya, Hrudhya, Stridoshjeet, Jwarghn, Imunomodulatory. According to modern it Anticancer, Antiinflamatory, Antimicrobial, Imunomodulatory, Antioxidant, Hepatoprotective, Gastroprotective, and effective medicine for many other diseases like Cataract, Osteoarthritis. Antimicrobial, Imunomodulatory, Antioxidant, Hepatoprotective, Gastroprotective, and effective medicine for many other diseases like Cataract, Osteoarthritis.
Vernacular Names

Names for this plant in various languages include:

lozü in Ao languages
halîlaj or ihlîlaj in Arabic
amlakhi in Assamese
balakka in Batak language, an Indonesian language
amloki in Bengali
amlai in Bodo language
anmole in Chinese
ambare in Garo language
āmla in Gujarati
ānvalā in Hindi
kantout Prei in Khmer
bettada nellikaayi in Kannada
sohmylleng in Khasi
āvālo in Konkani
mak kham bom in Lao
melaka in Malay, A state in Malaysia, Malacca was named after this tree.
nelli in Malayalam
heikru in Meitei
āvāḷā (or awla) in Marathi
sunhlu in Mizo
zee phyu thee in Myanmar
amalā in Nepali
anlaa in Oriya
suaklu in Paite
aula in Punjabi
amalika in Sanskrit
dhatric in Sanskrit, Maithili
nelly in Sinhala
nelly or Nelliikkāy in Tamil
aavnlaa (amla or ambla or awla) in Urdu
usiri kaay in Telugu
ma kham pom in Thai
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skyu ru ra in Tibetan
amla in Urdu
me rùng, me mấn, chừm ruột núi, or là Đặc kham in Vietnamese

### Synonyms

*Cicca emblica* (L.) Kurz  
*Diasperus emblica* (L.) Kuntze  
*Dichelactina nodicaulis* Hance  
*Emblica arborea* Raf.  
*Emblica officinalis* Gaertn.  
*Phyllanthus glomeratus* Roxb. ex Wall. nom. inval.  
*Phyllanthus mairei* H.Lév.  
*Phyllanthus mimosifolius* Salisb.  
*Phyllanthus taxifolius* D.Don

easons, all weather conditions, and all body types.

### Botanical Description

The fruit grows on a moderate-size deciduous tree that grows in the tropical subcontinent of India. All parts of the plant are used in various ayurvedic herbal preparations, including the fruit, seed, leaves, root, bark and flowers. Amalaki is smooth on the outside. It’s smallish — about a half to one inch in diameter, with many seeds. Amalaki has a very interesting property when eaten fresh. It is very sour when you bite into it, but after a few minutes it becomes sweet in the mouth. This is what is meant by the *vipaka*, or aftertaste.

### Pharmacological Research

Indian gooseberry has undergone preliminary research, demonstrating *in vitro* antiviral and antimicrobial properties. There is preliminary evidence *in vitro* that its extracts induce apoptosis and modify gene expression in osteoclasts involved in rheumatoid...
arthritis and osteoporosis. It may prove to have potential activity against some cancers.

One recent animal study found treatment with *E. officinalis* reduced severity of acute pancreatitis (induced by L-arginine in rats). It also promoted the spontaneous repair and regeneration process of the rat pancreas occurring after an acute attack.

Experimental preparations of leaves, bark or fruit have shown potential efficacy against laboratory models of disease, such as for inflammation, cancer, age-related renal disease, and diabetes.

*Emblica officinalis* tea may ameliorate diabetic neuropathy due to aldose reductase inhibition.

In rats it significantly reduced blood glucose, food intake, water intake and urine output in diabetic rats compared with the non-diabetic control group.

Another recent study with alloxan-induced diabetic rats given an aqueous amla fruit extract has shown significant decrease of the blood glucose, as well as triglyceridemic levels and an improvement of the liver function caused by a normalization of the liver-specific enzyme alanine transaminase activity.

A human pilot study demonstrated a reduction of blood cholesterol levels in both normal and hypercholesterolemic men with treatment.

### Chemical Constituents

Although these fruits are reputed to contain high amounts of ascorbic acid (vitamin C), up to 445 mg per 100 g the specific contents are disputed, and the overall antioxidant strength of amla may derive instead from its high density of ellagitannins such as emblicanin A (37%), emblicanin B (33%), punigluconin (12%) and pedunculagin (14%). It also contains punicafolin and phyllanemblinin A, phyllanemblin other polyphenols: flavonoids, kaempferol, ellagic acid and gallic acid.
Therapeutic Uses

Amalaki has an affinity with the circulatory system. Studies have shown that Amalaki can produce a decrease in serum LDH cholesterol levels and reduce fat deposits in the arteries, thus protecting the heart and arteries. In a clinical study, normal and hypercholesterolaemic men were given raw Amalaki fruit for 28 days and both groups demonstrated a decrease in total serum cholesterol levels. Other studies have indicated that Amalaki may reduce the risk of blood clots by reducing stickiness of platelets.

With its cooling properties, the fruit is commonly used in the treatment of inflammatory problems anywhere in the body. In the respiratory system, Amalaki has an antibiotic activity against a wide range of bacteria, used traditionally in treatment of lung infections.

It is also used to help treat asthma. Amalaki is also a good brain tonic as it improves memory and calms disturbed Sadhaka Pitta, which can give rise to irritability, short temperedness, and depression. It is used to treat urinary tract infections with success.

When used externally, Amalaki is a popular ingredient of hair oils and soaps used to prevent hair loss and nourish the hair. It is also used as a remedy for inflammatory eye problems such as conjunctivitis. The exudation from incisions made into the fruit is used as a collyrium in inflammatory eye conditions. The antioxidant properties of the fruit make it a potentially useful skin care ingredient against oxidative damage.

Amalaki also has antifungal activities in vitro.

Amalaki has been found to have chemo-toxicity preventative qualities. "Amalaki is useful in treating abdominal tumors of the Pitta variety." Charaka Samhita, Chikitsasthana 5:22.

Excellent source of Vitamin C containing about 720 to 921 mg of Vitamin C for every hundred grams of edible material. It is the most concentrated form of Vitamin C found in the plant kingdom, and because the whole fruit is used rather than an active ingredient, it is easily assimilated by the human body. The Vitamin C in the Amalaki fruit is bonded with tannins that protect it from being destroyed by the digestive acids.

It supports healthy levels of stomach acids. Because it improves digestion but does not heat the body ideal for calming mild-to-moderate hyperacidity and other Pitta-related digestive problems.

It supports the brain and mental functioning. Amla Berry is good for the brain. It is *medhya*, meaning it nurtures and enhances coordination among *Dhi* (acquisition), *Dhriti* (retention), and *Smriti* (recall), sharpening the intellect and mental functioning. It supports the nervous system and strengthens the senses.

It Supports the heart. It is *Hridya*, which means it nurtures the heart, blood and circulation. It supports the cardiovascular system. On the other hand, it sometimes acts as a cardiac stimulant. Supports the lungs. Amla Berry is a wonderful tonic for strengthening and nourishing the lungs (which are a major seat of Kapha dosha in the body), and the entire respiratory tract. It also pacifies *Shleshaka Kapha*, which among other things governs moisture balance in the lungs.

It Supports balanced elimination. also pacifies *Apana Vata*, thus helping with the downward flow of energy in the body. This keeps the function of elimination regular and eases constipation.

It supports fertility. By balancing *Apana Vata* and by nurturing all the *Dhatus* (body tissues), Amla Berry also keeps menstruation regular and healthy. Amla Berry supports the reproductive systems of both men and women and can help overcome difficulty in conceiving. It is a *vrishya* herb, which means that it enhances all the seven tissues (Dhatus), including the reproductive tissue. This herb nurtures the ovaries and sperm, and it has a property called *garbhasthapana*, which means it enhances fertility and the possibility of conception. It is especially nurturing for women, strengthening the uterus and supporting reproductive health.

It supports the urinary system. Because it enhances all the thirteen *agnis* (digestive fires) and supports *Apana Vata*, Amla Berry is
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