ANTHOLOGY OF INHERENT POTENTIALS ABOUT

PISTACIA INTEGERRIMA

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Abstract

Karkatashringi (Pistacia integerrima) is a well known medicinal plant which belongs to the family of Anacardiaceae. The plant belongs to Amrta-Kula and it is a dioecious shedding tree. It is found in North-West Himalaya including the Siwalk ranges/ Rohikhand from Indus to Kumaon between 500 to 2500 m. Altitudes , karkatashringi ). Pistacia integerrima (Anacardiaceae) is a deciduous tree shedding its leaves during the dry season and are wind pollinated. It flowers from March to May and fruits from June to October [1]. The tree does not tolerate fire and is strongly susceptible to acidic soils. However, it is wind firm, termite resistant, frost hardy and moderately drought resistant. The plant is known as kakra in Hindi and, chakra, chandraspada, shikARI in Sanskrit [2]. Majorly, galls contains resins, pistacienoic acid, tetracyclic triterpenes, camphene, luteolin, pistacin, pistacinin, amino acids, dihydroxymavlic acids, sterols and tannins ). These galls are useful in asthma, cough, hiccough, dysentery, diarrhoea, ulcers, bronchitis, fever, irritability of stomach, leprosy, psoriasis, skin diseases, vitiated condition of tridosh, dyspepsia, inflammation, anorexia, pharyngitis, leucorhoea and general debility. It is also very effective at children in the time of teething.The antiasthmatic and expectorant potencial of the plant has been reported for its use in several area an as folklore medicine [3]. In day to day life infectious diseases are the major problem. The environmental factor, pollution, change in atmosphere, changed living habits and changed dietary contents are affecting the human body and its immune system, resulting in increased number of infectious disease. Also increase in number of infectious organisms. Modern scientists have evolved various remedies such as antibacterial, antiviral, anti-fungal drugs to overcome these infections. [1]

Literature brush up reveals the different classical categorization of Karkatashringi. Different Acharayas (Ancient scholars) kept it in the different categories according to their own knowledge. Some confusion arises because of all the names related to Kartatika, Karkatavya, Karkatakyha etc. which are generally accepted as Karkatashringi.

Classical categories

Karkatashringi is a multibranched, single stemmed, deciduous tree of Pistacia integerrima which belong to the family of Anacardiaceae. The plant belongs to Amrta- Kula and it is a dioecious shedding tree. It is found in North-West Himalaya including the Siwalk ranges/ Rohikhand from Indus to Kumaon between 500 to 2500 m. Altitudes , karkatashringi ). Pistacia integerrima (Anacardiaceae) is a deciduous tree shedding its leaves during the dry season and are wind pollinated. It flowers from March to May and fruits from June to October [1]. The tree does not tolerate fire and is strongly susceptible to acidic soils. However, it is wind firm, termite resistant, frost hardy and moderately drought resistant. The plant is known as kakra in Hindi and, chakra, chandraspada, shikari in Sanskrit [2]. Majorly, galls contains resins, pistacienoic acid, tetracyclic triterpenes, camphene, luteolin, pistacin, pistacinin, amino acids, dihydroxymavlic acids, sterols and tannins ). These galls are useful in asthma, cough, hiccough, dysentery, diarrhoea, ulcers, bronchitis, fever, irritability of stomach, leprosy, psoriasis, skin diseases, vitiated condition of tridosh, dyspepsia, inflammation, anorexia, pharyngitis, leucorhoea and general debility. It is also very effective at children in the time of teething. The antiasthmatic and expectorant potencial of the plant has been reported for its use in several area an as folklore medicine [3]. In day to day life infectious diseases are the major problem. The environmental factor, pollution, change in atmosphere, changed living habits and changed dietary contents are affecting the human body and its immune system, resulting in increased number of infectious disease. Also increase in number of infectious organisms. Modern scientists have evolved various remedies such as antibacterial, antiviral, anti-fungal drugs to overcome these infections. [1]

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Classical categories: Gana Charak sahmita Karkatashringi is kept under the gana of (Bhedaninya, Angamaradprasamanma, Svedopaga, Madhuraskanda) [4] (Kasahara, Hikkanigrahana and Madhura skandha) Charak interpreted it as the small variety of amalaki.

Sushruta sahmita: In Sushruta sahmita, Karkatashringi placed under the gana of (Vidariaghadhi, Adhibhagahara, Vatasamshama). It is important to note that sushruta classified it as a Kanda visa (poisonous tuber). The toxic symptoms of this plant are documented by sushruta samhita [5]. Bhav prakash: In this ancient text, some of the properties of the plant are mentioned. Asthanga Hariyadham: In Asthanga Hariyadham, Acharya Vagbhatta mentioned the description of Karkatashringi in Kesava Paddhati. (Kaviraj and Sangrah [6].)

Classical categories


Vagbhata: These medicinal plants were described in Kesave Paddhati. Both caraka and Sushruta consider this plant as a poison for a vegetable origin. Acharya Sushruta kept this plant in Visha khand. Similar confusion is apparent in the context of Gunja which is categorized under Mula visa (root poison). Caraka interpreted it as amalaka and the toxic symptoms are mentioned by Acharya Sushruta. Likewise, Dalhana’s comments add more confusion about its identification since Mesasrangi, Ajarirangi and Uttamari are equated to Karkatashringi because, the Asclepiadaceae family may have the same synonym,[5-9]

Description of Plant

The plant trunk is dark grey or it is a glabrous shrub blackish bark and grown unto 16m. Leaves are 20-25 cm in length, with or without terminal leaflet; leaflets 4-5 pairs, lanceolate, coriaceous and base oblique. The odor of this shrub is peculiar. Leaves are dark green in color which turn bright red in autumn. This is the time when they are more easily recognized. Flowers are in lateral panicles, male compact, pubescent, female lax and elongate. Plant wear the flowers and fruits in spring, which have large clusters of tawny colored fruit in winter. These fruits are eaten and spread by many species of birds. Seeds of plant are with a membranous testa.[10]

Toxicity and other activities

Pistacia integerrima is placed in ayurvedic anticancer plant medicines.
Fractionated stem extract of Pistacia integerrima has proved cytotoxic against breast cancer cell line MCF-7. Bark extract of Pistacia integerrima and its solvent based fractions were also subjected to phytotoxic studies and ethyl acetate fraction inhibited Lemna minor significantly (90%) followed by chloroform and methanol fraction suggesting their phytotoxic composition. Galls of Pistacia integerrima were reported to have significant analgesic and antiinflammatory activity. Galls were found more potent than leaves as far as analgesic and antiinflammatory activities were concerned however no acute toxicity was found in oral administration of extracts [10].

**Chemical constituent**

Karkatshringi contains various important phyto-constituent for commercial value and therapeutic potential. Chiefly it contains resin two isomeric triterpenic acids-pistacienoic acids A and B, tannins, a triterpene alcohol-tirucalol, beta-sitosterol, tetracyclic triterpenes, pistacgerrimones A,B,C(galls); alpha-piene, beta-piene, camphene, dillimonene,1,8-cinol, alpha- terpineol, beta- terpineol, aromadendrene, lactonic stearoptene, caprylic acid, alpha &beta- phallandrene, amino acids, dihydromalyalic acid, protein (seeds); hydrocarbons, sterols, triterpenoids(seeds oil), tannins (leaves,bark).[4,11]

**CONCLUSION**

The plant is keeping remarkable potential in the field of herbal medicine which should not be ignored and should be kept in consideratation to search new potential from its different parts.

**REFERENCE**


2. [http://www.ayurwiki.info/wiki/karkatshringi](http://www.ayurwiki.info/wiki/karkatshringi)
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