

Ethnobotanical Note on the Medicinal Plants of the Lower Himachal Pradesh

Abstract:

Himachal is rich in the natural resource. These plants are hereditary used in various formulation and dietary foods. The plants are widely distributed in the lower Himachal at the altitude of 800mtrs to 2600mtrs. The plants are known by their local names and the ethnic knowledge has been passed for the centuries to the locals. These plants are immunomodulatory, anticancer and improves the body functions. Roots, barks, leaves and fruits are used in the food and medicines by local peoples.

Keywords: Plants, Himachal Pradesh, Dadu plant, anti-cancer

Introduction:

Traditional knowledge in the India is passed from one generation to another. These are in folks, tales and in the form of the customs. Rural population in India uses the traditional knowledge to cure diseases and small ailments. In 2008 the total herbal market in India is 8 billion dollars and 25 percent modern drugs depend on the herbal products. Plants produce various secondary products like saponins, carbohydrates and tannins etc. these are considered safe and inexpensive.¹ Medicinal plants are used in the Ayurvedic, Unani and other industrial formulations.

Himalayas are one of the biggest sources of medicinal herbs and plants. The demand for ethno pharmaceutical products has increased globally and crafted its place in the modern healthcare system. Himachal Pradesh is the naturally rich area in terms of natural resources. A number of medicinal plants from Himachal Pradesh have been found useful in the cure and mitigation of diseases and antimicrobial infections.

Dadu Plant:

It is known as *Punica granatum* (Pomegranate) height ranges from five to eight meters and found in the eastern and middle Asian countries. This plant can survive in arid conditions its medicinal properties are used in the plant based industries preparing the herbal formulations. This has created immense pressure on the natural resources and demand increased up to 50 percent but availability decreased by 26 percent.²

Drek Plant:

It is a native plant of the Burmah and India and commercialized in the American countries. It is also distributed in other countries and attains the heights of about 45 mtrs and diameters of 120 cms. It is also an ornamental plant and grown in the tea gardens for shade purpose. It is a drought resistant plant and it is Antidiarrhoeal, deobstruent, diuretic used in rheumatic pain also antipyretic, used to treat nausea, vomiting and general debility, loss of appetite, stomachache. Bark decoction is used to cure fever aches and pains, Bark paste is used to treat piles, used as lotion on ulcers, syphilitic. It is used to stimulate hair growth in baldness.

Jamnu:

Its common names are jambolan, jamun, java plum, Indian blackberry, purple plum, Jamaica and damson plum. It contains anthocyanins, glucoside, ellagic acid, isoquercetin, kaempferol and myricetin. Alkaloid, jambosine, and glycoside are present in the seeds, which inhibit the conversion of starch into sugar and seed extract has reported to lower blood pressure by 34.6% and this response is mainly due to the ellagic acid content. Jamnu also contains the flavonoids which have the antioxidant potential and decrease the sugar levels. Various aerial parts of the jamnu have proven to be effective in lowering down the blood sugar level in various experimental and clinical conditions. Tea prepared with leaves of jambolan had antihyperglycemic effect.

Nirgundi:

Nirgundi is a sacred plant in the India and it originated from lord ganesha as per the tales.

It tastes bitter and pungent. It elevates the Pitta Level in the body and supposed to be Hot post digestive.it has capability. Nirgundi roots are added in to the tonics,and its febrifugal,relieves cough,and it possesses the diuretic properties.It has also been found to improve the oral hygiene and improve the mandosha.³

Brahmi:

Brahmi is considered to be correlated with the creator the God Brahma and considered as the directly considered with the brain.. Charak Sahinta has correlated the plant with the memory boosting and treating the mental insanity. Bacopa monneri, belongs to the Scrophulariaceae family.This plant has coiling type of the branching and bears light purple flowers. It is considered to improve the memory power and enhance the focus. It is used in various blood disorders , brain illnesses , diabetes and epileptic seizures.⁴

Tirmira:

Zanthoxylum armatum is an is a tall herb contains the spike and number of branches.Its Bark is pale brown and deeply furrowed. Sharp thorns are present on the bark. Leaves are trifoliate. Flowers are greenish yellow in colour. Seeds are pungent and black in colour. Small twigs of the plant are chewed and used as tooth stick for cleaning teeth. It is taken as high for this purpose as it creates a characteristic tingling sensation in the mouth and also activated the salivary glands. Its wood is very hard , so its branches are valued for making clubs to be used in stone grinding pots. The bark, fruits and seeds are extensively used in indigenous system of medicine. Tirmir shrub can be planted for being used as a hedge or border. Stem bark is used in cough, asthma, difficult breathing, and rheumatism.⁵

Shatawar:

Shatawari as the name suggests “ with hundred husbands , has proven effective in the numerous female reproductive problems . It belongs to the family Asparagaceae. It is extensively used for the medicinal benefits.the fresh roots are milky white in appearance , seems to be fleshy and turned to be brown on drying. Methanolic extract of Asparagus racemosus possesses the antidepressant activity and interacts with adrenergic, dopaminergic, serotonergic and GABAergic systems. Its effects are almost comparable to the metoclopramide. In Ayurveda,it has found to be lipid lowering and hence used in numerous lipid lowering formulations..⁶

Berberis Aristata:

Berberis Aristata popularly known as Kashmal.Its aqueous extracts contains berberine, oxyberberine, berbamine, arnomoline, karachine, palmatine, oxyacanthine and taxilamine as main constituents.Protoberberine and bis isoquinoline are type of alkaloid which were isolated from the extracts.The root extracts were highly rich in the alkaloidal contents.It is used in the

microbial infections, fever, bitter to improve appetite and its effects central nervous system activities, by inhibiting the MAO and prevent degradation of the norepinephrine and serotonin (5-HT).⁷

Kafal

Kafal trees are found on hills between the altitudes of one and two thousand meters above sea level. It is a reddish coloured fruit on maturity., Kafal is mostly known as *Myrica esculenta*, but also referred as *Myrica integrifolia* and *Myrica nagi*. The medicinal properties of the Kafal lies in the bark portion of the plant. Bark contains the chemical Myricitin.⁸

Puthkanda :

Achyranthes aspera commonly called as “puthkanda” in hindi, is being used in ayurveda as an herbal drug since ages. It has antifertility, antimicrobial, anti-inflammatory , antinociceptive role, and also as an immune stimulator. It is used in the formulations for stones in the kidney ; however, no scientific basis has been formulated for its antiurolithiatic potency.⁹

Pudina:

Pudina (*Mentha arvensis*) extensively used in the vrious food items and found to improve ethe digestion. ¹⁰It contains the flavonoids triterpenes and essential oils. Pudina posseses the antibacterial and found to improve the lipid function and kidney function in the humans .^{11, 12}

Banaska:

Viola odorata has been used in the traditional formulations for treating the headache, fever bacterial infections. It was found to be very effective in the respiratory problems and used in the antitussive, febrifuge, analgesic, anti-inflammatory and anti-infectious formulations. Banaska has been found to be effective in the cancer and auto immune response. It also have aspirin like chemical moieties and effective in the migraine and headache. The complete plant is anti-inflammatory, anti cancer, diaphoretic, diuretic, emollient, expectorant, and laxative properties. It is formulated in the treatment of bronchitis, , coughs, asthma, and cancer of the breast, lungs or digestive tract. It is usefull in improving the oral hygiene.

NOTE:

The study highlights the efficacy of " **Ayurvedic** " which is an ancient tradition, used in some parts of India. This ancient concept should be carefully evaluated in the light of modern medical science and can be utilized partially if found suitable.

COMPETING INTERESTS DISCLAIMER:

Authors have declared that no competing interests exist. The products used for this research are commonly and predominantly use products in our area of research and country. There is absolutely no conflict of interest between the authors and producers of the products because we do not intend to use these products as an avenue for any litigation but for the advancement of knowledge. Also, the research was not funded by the producing company rather it was funded by personal efforts of the authors.

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