

Traditional usance of medicinal plants by shepherds, Gujjar and Bakerwal tribes in mountainous areas of kulgam district (Jammu and Kashmir)

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ABSTRACT: Medicinal plants have been playing an essential role in the development of human culture. Thus the present study was carried out from mountainous areas of kulgam district especially of villages link with D.H.PORA Tehsil, to document the information about the Medicinal plants. The present study was designed together indigenous knowledge of local people especially Shepherds, Gujjar and Bakerwal tribes about traditional medicine usance of plants, indigenous knowledge was collected by questions, intervening and discussion of different age groups in between 35-90 years of shepherds Gijjars and Bakerwal tribes. Total of 23 species belongs to 18 Families were recorded as being utilized by shepherds Gujjar and Bakerwal tribes for curing various diseases.

Key Words: indigenous knowledge, dh pora, shepherds, Gujjar and bakerwal tribes.

1. INTRODUCTION

Human beings have depended on nature for their simple requirements as being the source for medicines, shelters, food stuffs, fragrances clothing, flavors fertilizers and means of transportation throughout the ages. for the large proportion of world's population medicinal plants continue to show a dominant role in the wealth care system and this is mainly true in developing countries, where herbal medicine have continuous history of long use. The improvement and recognition of medicinal and financial aids of these plants are on rise in both industrialized and developing nations [1]. Ethno- botany is the study of how the people of a particular culture and region make the use of indigenous plants. It is the relationship between a given society and its environment and in particular the plant world [2]. Ethno- botany plays a great role in understanding the dynamic relationships between biological diversity social and cultural systems [3]. India has vast diversity of plants, which are being used by local communities for medicinal purpose [4].

As per world health estimates, about 80% of the population in the developing countries depend directly, on plants for its medicine [5,6]. Kashmir Himalaya harbors a rich diversity of medicinal plants [7]. The state of Jammu and Kashmir is populated with several ethnic groups [8]. With each group having their own knowledge of traditional herbal medicines[9]. Up to know a very fine study have been carried out to document ethno-medicinal usance of plant species this particular region because of being remote and different terrains, [10,11,12]. In India the medicinal plant related trade is estimated to be approximately US 1 billion dollar per year [13]. According to an estimate, the quantity of export of ayurvedic tripled between last two years, in 2008, India exported medicinal plants worth 8 billion dollars, 90% has in crude form of finished products, Rest of them were partially prepared products [14]. The practice of ethno medicine is an important vehicle for understudying indigenous societies and their relationship with nature [15]. Indigenous knowledge simply refers to health practice knowledge and beliefs incorporating plant based remedies, spiritual therapies, manual techniques and exercises, applied singly or in combination to treat diagnose and prevent illness or maintain wellbeing [16]. The plants have been used as therapeutic and for alleviating various human ailments from very earlier times [17]. Kulgam district is a elegant spot on the earth in Jammu and Kashmir .because of its genial climate, streams, waterfall, fragment blooms, delicious fruits, and other natural sceneries. The climate is particularly dried temperate. The areas at higher altitudes are cool in summer and having harsh winter. Aharbal is the famous tourist spot in district kulgam it is very high and elegant water fall, it has its origin from spring called Kounsar naag located to the mountains range of peer panchal .which is the major source of river Vishue . The food crops of the area are rise, maize, and wheat. Etc. the cash crops are almond, apple, and walnut etc. kulgam is known as the rice bowl of the valley and is known for its variety of fruit especially apples., Shows that no systematic study of medicinal plants from

ethno-medicinal point of view has been carried out in the area of investigation in the present study an attempt has been made to document the ethno-medicinal usage of the various plants species in kulgam district of Jammu and Kashmir. Thus it is this back drop that present study of some traditional medicinal plants of the mountainous areas of the kulgam district utilized by shepherds, Gujjars, and Bakerwal tribes.

2. MATERIALS AND METHODS

Kulgam was accorded a district status in 2007 earlier being part of district Anantnag. The study was conducted in mountainous areas of south Kashmir kulgam district. Geographically district kulgam is located at 33° 39' N 75° 01' E 33.65° N / 75.02° E / 33.63; 75.02 it has an average elevation of 1733 meters (5705 feet). District kulgam is situated about 68km from Srinagar and about 17km from Anantnag. Roads connects to the neighboring districts of Shopain , Pulwama , Anantnag, and Aharbal. The villages of the study area are those which links with DHpora tehsil.

During this investigation field trips were carried out to the area of study major portion of the study was completed in between may-July and rest of the small portion is completed in between December 2018. proper methodology was used to obtain the information about the medicinal usance of different plants from local population [18, 19]. The local people with indigenous knowledge on medicinal plants were contacted by field visits in different mountainous areas of kulgam district especially of the area include dh.pora,aharbal, with the help of local people, and local traders. The district is populated by several ethnic groups such as shepherds, Gujjar and Bakerwals, the Shepherds are sheep herders, Gujjar are cow/buffalo herders and Bakerwals are goat /sheep herders. Every year they took their live stock animals high in to the mountainous above the tree line to graze in the lush meadows. It may take them as many as 50 days to reach these meadows. they are accompanied by their dogs (Bakerwal dogs) to guard the sheep / goat and their pack animals .Gujjar are generally permanent settlers at the foot hills of mountainous areas they however move to warm places during harsh winters along with their animals. These ethnic groups have their own knowledge of traditional herbal medicines inherited from their own knowledge of traditional herbal medicine inherited from their fore fathers. These medicines are well accepted by the local people since generations have experienced their efficacy in alleviating a variety of diseases [20]. The source of information were tribal people,(shepherds, Gujjar and bakerwal), medicinal plant practitioners, local and old persons of the understudy area. The collection of information was done by groups discussions, questionnaires' and interviewing all the persons in their local language (gogri, Kashmiri- etc.) each of plant material was identified [21,22]. Also the local herbal healers (hakims) were mostly consulted during the study. The plants / plant parts collected from different sites of the study area were subjected to drying between news papers and kept in a wooden press. This was primarily done by carrying the collected specimens to the old shepherds, Gujjar and Bakerwal tribes for knowing their local name and their uses the useful information of plants was recorded in field books. The information gathered was rechecked and verified by discussion with Hakeem's, important workers, [23,24] and at IIIM (INDIAN INSTITUTE OF INVESTIGATED MEDICINE) pulwama.

Identification of the field collected plants was done from KASH herbarium of Kashmir university, various published floras relevant authorities and important works including flora of pulwama [25]. Flora of Srinagar Kashmir [26]. And contribution to flora of Kashmir [27].

3. RESULTS

The present study revealed that 23 plant species are utilized as medicinal plants by shepherds, Gujjar and Bakerwal tribes in mountainous area of kulgam district. Each medicinal plant species is provided below table no (.1.1A) with the scientific name, local name, family, medicinal plant part utilized and their ethno-medicinal importance.

Table No. 1.1A (List of plants used as ethno medicine in shepherds, Gujjar and Bakerwal tribes in mountainous areas of kulgam district)

s.no.	Botanical name	Local name	Family	Plant part utilized	Ethno-medicinal uses
01	Achillea millifolium	Pahal-gasseh / Berigeur	Asteraceae	leaves	Fresh leaves are chewed to cure the tooth ache; the herb is most useful in cold and commencement of fever and purifies blood.

02	Artemesia absenthium	Tethwan	Asteraceae	leaves	Liquid extract of the herb in combination with leaves of Fumaria indica is used to cure obesity, it also decreases sugar level in blood, and it also cures liver infection. The leaves are used for the killing of intestinal worms.
03	Taraxacum officinale	Hand	Asteraceae	Roots and leaves	Back pain, common cold, chest infection, and loss of appetite.
04	Berberislyceum	Kawdach	Berberidaceae	Roots , fresh fruits	Indigestion ,constipation
05	Iris kashmiriana	Mazarmund	Iridaceae	Root , whole plant	Joint pains, colic problem, roots are also used as bipropellant against rodents
06	Datura stramonium	Datur	Solanaceae	Seeds	Tooth ache, rheumatism, seed infusion is given to the horses as a tonic.
07	Urtica dioca	Soi	Urticaceae	Leaves, and roots	Rheumatism
08	Viburnum grandiflorum	kulmanch	caprifoliaceae	Seed, roots and leaves	Juice obtained from seeds is given to treat typhoid and whooping cough, the roots are grinded and this powder mix with tea to stop menstrual bleeding in females.
09	Viola odorata	Bunufsha	violaceae	Leaves ,seeds and flowers	Respiratory problems, for constipation and fever, flowers are mixed with water and sugar and fermented for few time to make khambir is used to treat cough, sour throat and fever during winter.
10	Solanum nigrum	Kambai	Solanaceae	fruit	Juice from fruit is used to treat jaundice, it is also blood purifier
11	Rheum emodi	Pambechalan	Polygonaceae	Leaves and rhizome	Rhizome powder is sprinkled on ulcers, burns and non healing wounds for quick healing, abdominal pain, rheumatic pain, and boils.
12	Juglanas regia	Doan kul	Juglandaceae	Leaves, bark, and roots	For tooth infection and cleaning of teeth.
13	Cedrus deodara	Divdar	Pinaceae	Stem, bark	Skin rashes and external ulcers.
14	Oxalis corniculata	Tsok -tsen	Oxalidaceae	Whole plant, leaves	Blood purification, loss of appetite, and diarrhea.
15	Cynodon dactalon	Dramun	Poaceae	Whole plant	Common cold and cough.
16	Rosa macrophyphylla	Jangli gulab	Rosaceae	Flowers	It is used to cure cough and cold.
17	Jurinea ceratocarpa	Gugl dhup	Asteraceae	Roots	Dried root powder is used as kajal
18	Mentha longifolia	Yeni	Lamiaceae	Leaves	Abdominal disorder, head ache and stomach problems.

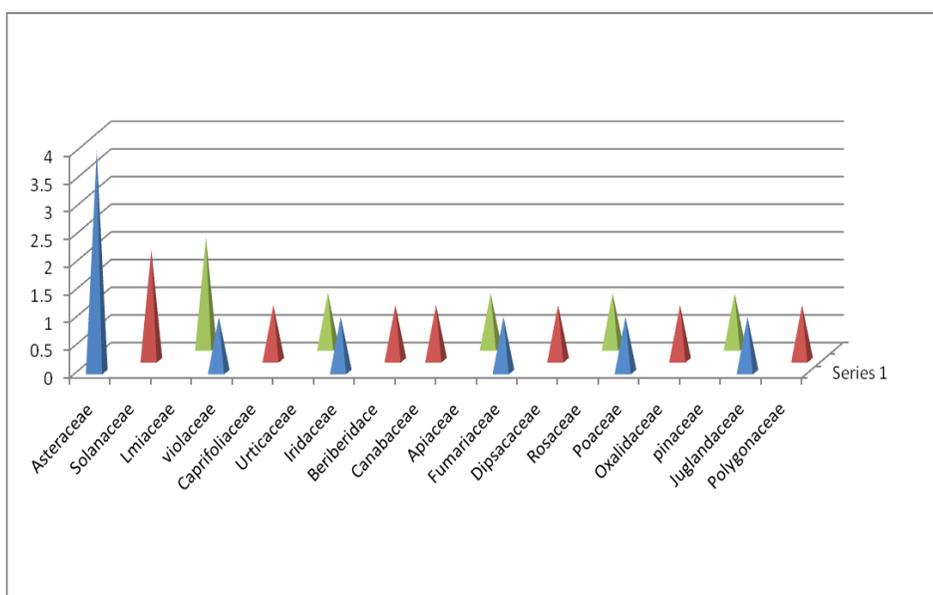
19	Dipsacus inermis	Wupal hawkh	Dipsacaceae	leaves	The leaves are boiled in water and the resulting extract is used by females for taking bath after giving young ones (after delivery)
20	Prunella vulgaris	Kal vauth	lamiaceae	Flower, leaves	Head ache, fever, wounds, it is also called brain cleaner.
21	Fumaria indica	Shah tar	Fumariaceae	Whole plant	Blood purifier
22	Bunium persicum	Jangli zeer	Apiaceae	Seeds	The seeds are used as carminative, head ache, stomach problem, and loss of appetite.
23	Cannabis sativa	Bhang	Canabaceae	leaves	Extract of leaves is used for menstrual problems.

4. DISCUSSION

Ethno medicinal investigation provided a wealth of information regarding the past and present relationship between plants and human’s ethno medicine even today play an important role in tribal communities. The study indicated that age groups from 35- 90 years of shepherds, Gujjar and Bakerwal tribes had greater knowledge about medicinal plants.

The present study demonstrated that the mountainous area of kulgam district is plentiful in useful medicinal plants. A total of 23 Medicinal plants have been collected, these species are distributed in different families. The maximum no of species belongs to family Asteraceae also below the group showing dominant families (1.1B) .present study also discovered that either whole plant or different plant parts are used to treat various ailments. During the plant investigation in mountainous areas of kulgam district it was also estimated that some plants species are used to treat more than one ailment. Below 1.2b pie chart demonstrates plant parts used for various ailments. The study also indicated that over exploitation and deforestation were the main causes for the depletion of medicinal plants in the area although the medicinal plants species were under threat, traditional healers do not practice any conservation measures to ensure the sustainability of such plants. The plants like prunella vulgaris and viola odorata are endangered and need information attention towards preservation on priority basis.

In recent times several threats of bio-piracy and intellectual property rights (IPR’s) with huge economy at stake have necessitated the early bio- prospecting of the potential medicinal plants used in the folklore. [28,29]



Graph 1.1B (shows dominant families in mountainous areas of kulgam district)



PIE CHART 1.2B (status of plant part used)

5. CONCLUSION

Medicinal plants represent and contribute significantly to human health. Use of medicinal plants by Kashmir people has a long history and here we reported on 23 medicinal plant species used in shepherd, Gujjar and Bakerwal tribes in mountainous area of kulgam district. The traditional knowledge and practices of medicinal plants among rural communities of mountainous area of kulgam district against different diseases have great significance. On the other hand, due to unsustainable harvesting, over harvesting, deforestation and uncontrolled grazing, medicinal plant diversity of kulgam district is largely threatened and many species are in critically endangered category. It is high time that a feasible conservation strategy and action plan should be formulated and implemented effectively in order to save this high value dwindling resources.

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