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ORIGINAL ARTICLE

Ethnomedicinal Plants Used By The Tribal People in Pir Panjal Region of Jammu Province of Jammu and Kashmir State India

Jamil Ahmed Khan and Tareq Ahmed Wani
Department of Botany K.P.G. College Simbhoali, Hapur
Email: jamilkhanmdr@gmail.com

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ABSTRACT

Medicinal plants resources of forest origin are extensively used in India for various systems of medicine like Ayurveda, Unani, Homeopathy, Allopathy, Sidha etc. The paper highlights some commonly used ethno medicinal plants species for treating different ailments by the tribal people of Pir Panjal region of Jammu province of J&K State. The data was gathered from ethnic people especiall from Gujjar, Bakerwal and Pahari tribes. In addition to this local Hakims and vaidyas were also interviewed to collect the valuable information. A total of 15 plant species belonging 15 genera and 10 families were collected. The species, family, vernacular name, plant parts used, drug preparation and mode of administration have been studied.

Key words: *Ethnomedicinal Plants, Tribal People, Pir Panjal Region*

INTRODUCTION

Ttreatment of their different diseases form ages. An attempt has been made to document the ethnomedicinal plants of the Pir Panjal region of Jammu and Kashmir. The people in this region are socio economically backward and most of them are below poverty line. Climatically spring, rainy and winter season are well marked in this region.

A review of literature shows that a lot of research has been carried out on ethno medicine and floristic diversity in different areas of Jammu and Kashmir as well as in India but Poonch district of J & K is very less explored. Jain (1991) worked on Indian Folk medicine, Aswal (1996) carried out studies on ethno medicinal plants of Garhwal Himalaya whereas Jain (2000) worked on ethno veterinary medicinal plants of India. Tiwari and Pandey (2006) studied indigenous veterinary practices of Dharma Valley of Pithorgarh district of Uttranchal, Rashid (2010) carried out ethno botanical studies of district Rajouri of Jammu and Kashmir; whereas Renu (2010) similarly studied on Taxonomical studies of some plants of ethno veterinary importance in curing milk yielding animals of Kathua district (J & K). Khan, *et. al.* (2012) studied ethnomedicinal plants used on toothache in Poonch district of Jammu and Kashmir. Khan and Kumar (2012a) studied ethno medicinal uses of some medicinal plants used on snake bite in Poonch district of Jammu and Kashmir, Khan and Kumar (2012b) similarly studied ethno medicinal uses of some medicinal plants among the tribal people of Poonch district of Jammu and Kashmir, Khan and kumar (2012c) also worked on ethno veterinary values of some medicinal plants used against snake bite in Poonch district of Jammu and Kashmir. Khan (2013) worked on folk medicinal uses of some medicinal plants among the tribal people of Pir Panjal region of Jammu and Kashmir. Khan and Paul (2017) studied Ethno medicinal plants used in Gynecological disorder by the tribal and rural people of Poonch district of Jammu and Kashmir.

STUDY AREA

The mountains of Pir Panjal range situated in the inner Himalayan region run from east-southeast (ESE) to west-northwest (WNW) across the Indian states of Himachal Pradesh and Jammu and Kashmir. The average elevation of this group of mountains varies from 1,400 m (4,600 ft) to 4,100 m (13,500 ft) which shows a gradual elevation towards the Dhauldhar and Pir Panjal ranges.

In Jammu and Kashmir Pir Panjal is also a barrier of Poonch, Rajouri and Banihal to Kashmir and also for the monsoon for crossing over to Kashmir Valley. The alpine and Sub- alpine meadows of this area are rich in important medicinal plants used by the Gujjar and Bakerwal tribes of the area.

It dissociates itself from the Himalayas near Sutlej River and forms a divide between the River s Beas and Ravi on one side and the Chenab on the other. The famous Murree and Galliat mountains are also located in this range. The Banihal pass (2,832 m (9,291 ft)) lies at the head of the Vitasta River at the southern end of the Kashmir valley. Banihal and Qazigund lie on either side of the pass.

The Sinthan pass remains covered with snow for most of the year and connects Kashmir valley with Jammu Province. Pir ki Gali is the highest point of Mughal road and connects the districts Rajouri and Poonch with Kashmir valley. Before Mughal road this track was also used by the peoples of the region for crossing over to Kashmir Valley. In addition to Pir Ki Gali Nurpur Gali and Jamian Gali areas are also used by the Gujjar and Bakerwals to enter into Kashmir valley along with their livestocks. Haji Pir Pass lies (altitude 2,637 m) on the western side of Pir Panjal range on the road between Poonch and Uri.

Table 1: Ethnomedicinal Plants of the Study Area

S. N	Botanical Name	Family	Local name	Occurence	Method of preparation and mode of use
1	*Adiantum venustum* Linn.	Adiantaceae	Kiotheri	Common	Paste of fronds is applied externally.
2	*Acorus calamus* Linn	Araceae	Bach	Common in marshy are	Rhizome is roasted and 1 gm powder is given orally with honey on whooping cough to children.
3	*Achillea millefolium* Linn	Asteraceae	Chau	Common	Juice of leaves is given orally to the patient on retention of urine.
4	*Balanophora involucrata* Hook f.	Balanophoraceae	Mastani	Rare	Decoction of whole plant is given orally on abdominal colic to children.
5	*Centella asiatica* Linn	Apiaceae	Brahmi	Almost common	An equal quantity of whole plant of Centella asiatica is mixed in equal quantity of honey and 10 gm is given daily until recovery
6	*Curcuma sp*	Zingiberaceae	Banhaldi	Common	Rhizome is creamish white almost unbranched and given on snake bite.
7	*Cassia fistula* Linn	Fabaceae	Amaltas	Endangered	Fruit powder is given orally.
8	*Gerbera gossipyna* Royle	Asteraceae	Kough	common	Whole plant is grinded and given orally on blood disorder to the patient.
9	*Gonatanthus pumilus* (D. Don) Engler and Krause	Araceae	Rata ganda	Rare	About one gm powder of tuber is given daily until recovery from swelling
10	*Lavatera kashmeriana* Camb	Malvaceae	Dangsanchlu	Rare	Root of the plant is given orally on urinary tract infections and seminal debility.
11	*Saussurea simpsoniana* Gard and Lipsch.	Asteraceae	Jogi badshah	Rare	Decoction of the plant is given orally to the patient on nervous and historical condition
12	*Sauromatum pedatum* Wild	Araceae	Surganda	Common	Paste of tuber is applied externally after applying butter on abscesses with severe pain
13	*Serratual pallida* D.C.	Asteraceae	Manja pater	Coomon	Root paste is fried in purified butter and applied externally on boils.
14	*Trichodesma indicum* Linn.	Boraginaceae	Handusi	Common	Juice of flowers and leaves is given orally on uterus prolapsed.
15	*Prinsepia utilis* Royle	Rosaceae	Phulwara	Common	Young leaves are given orally on blood purification and diabetes.

Fig. 1-6: Photographs of Some Important Ethnomedicinal Plants

1. *Adiantum venustum*

2. *Acorus calamus*

3. *Centella asiatica*

4. *Curcuma sp*

5. *Serratual pallida*

6. *Trichodesma indicum*

MATERIALS AND METHOD

The work was undertaken through field studies carried out during the period of February 2009-March 2011 in different areas of Pir- Panjal region of Jammu province of Jammu and Kashmir state. Intensive and extensive field studies were carried out in different areas of the region for duration of four to five days each, but in some cases the stay during the field study exceeded up to fifteen days. While collecting the plant specimens, voucher numbers were allotted to each specimen and detail regarding the botanical characters and folk uses were recorded on the field note book. Information regarding place of collection, collection number, altitude, date of collection, flower colour, fragrance and other characters which may be lost during the pressing of the specimen have

been recorded. While making collection for preservation care was also exercised to collect the diseased free specimen. At high altitude we used old news paper for pressing the plant specimens. The collected plant specimens were tagged and carried to the laboratory in plant press. During first few days the sheets were changed at an interval of six hour in rainy season so that the discoloration of foliage and flowers may not take place. The plant specimens have been identified with the help of standard floras of Hooker (1872-1897), Duthei (1903-1929) and Gour (1999). Finally the identified specimens have been deposited in the department of Botany, K.P.G. College Simbhoali for further references.

OBSERVATION

The collected ethnomedicinal plants have enumerated in table 1 with their botanical name, family, local name, occurrence and method of preparation and use.

RESULT AND DISCUSSION

Evolving over a long period of time based on necessities and experiences, indigenous medicinal system is an important component of indigenous knowledge of the Gujjar, Bakerwal and Pahari community, which is an important natural resource that facilitates the development process in cost effective, participatory and sustainable ways and plays an important role in resource conservation. In the studied villages, 15 indigenous medicinal plants are being practiced by the Gujjar Bakerwal and Pahari tribes. The plant parts used for medicinal proportions are roots, rhizomes, bark, leaves, flower, wood oil and whole plants. The most frequently utilized plan parts are root, followed by leaves, seed and whole plants. The reported taxa are highly valuable for cure of dysentery, blood purification, snake bite, urinary tract infection, and seminal debility, uterus prolapsed, abdominal colic, nervous and hysterical condition, abscess and severe pain, whooping cough and herpes etc.

From the above discussions it has been observed that the tribal inhabitants have their own plant classification according to use and effects on the health. No scientific studies exist on the ethnobotanical basis of plants, except scanty, unplanned work done on the enlistment and location of the valuable plants. The ethno medicinal survey of the area revealed that the age old tradition of plant used as drugs practiced by tribal and local people of the area has been handed down from generation to generation and is still carefully preserved in this hilly area, but due to various anthropogenic activities, progressive modernization, urbanization and globalization, traditional knowledge system they possessed or inherited as a legacy may be vanished fast or polluted with the impact of modernity in future. This study may help in conservation, propagation and cultivation of precious herbs. The knowledge of above reported Ethnomedicinal plants of the study area further requires proper chemical & pharmaceutical experiments and clinical trials for the development of safe and effective drug preparation.

CONCLUSION

Present work carries the results of ethno-medico botanical studies in Indian Western Himalayas. It gives the salient features of the use of plants as medicine by the tribal people. Traditional healers have a rich knowledge on medicinal plants that is however disappearing due to rapid pace of socio-economic changes, modernization and technological developments. To date, no exhaustive studies on ethnomedicinal plants had been done in Pir panjal range of Jammu and Kashmir State.

Human's factors are the major threats to the medicinal plants in particular in the study area. As suggested by most informants, in the area, the bio-resources along with the rich indigenous knowledge system are depleting so fast due to various anthropogenic activities and rapid urbanization.

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