



## ORIGINAL ARTICLE

**Folk Medicinal Plants Used on Diabetes and Blood Purification in Poonch District of Jammu and Kashmir North West Himalaya India****Jamil Ahmed Khan and Rajinder Paul**

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Email: [jamilkhanmdr@gmail.com](mailto:jamilkhanmdr@gmail.com)Received: 5<sup>th</sup> Sept. 2016, Revised: 2<sup>nd</sup> Nov. 2016, Accepted: 10<sup>th</sup> Nov. 2016**ABSTRACT**

The present paper deals with 14 medicinal plant species belonging 12 families and 13 genera collected from different localities of district Poonch used by the tribal and rural people. The traditional knowledge systems have started to disappear with the passage of time due to scarcity of written documents and relatively low income in these traditions. Our major objective is to explore the potential medicinal plant resources of the area and to attract the scientific communities and research scholars. The further investigation of some of the plants such as *Gerbera gossypina* Linn and *Oxytropis* sp may lead to invention of new drugs. The study reveals that Poonch district of Jammu and Kashmir harbors a rich diversity of valuable medicinal plants and attempts should be made at different levels for sustainable utilization of this resource in order to develop the medicinal plants sector.

**Key words:** Ethnomedicinal plants diabetes, blood disorder

**INTRODUCTION**

The peoples in remote areas and tribals in far-flung areas have great faith in the effectiveness of medicinal herbs available from their surroundings. India is the rich repository of floral elements with more than 17500 flowering plant species out of which 3000 plant species have officially recognized for their medicinal value. It is generally established that over 6000 plants in India are used for traditional, folk and herbal medicines, representing about 75% of the medicinal need of the third world countries (Rashid 2010). The need for the documentation of medicinal plants exists all over the world and significant work has been done to explore the medicinal plants of Jammu and Kashmir as well as other parts of the country and world like Kachroo and Nehvi (1976), Kacoo, *et. al.* (1977), Srivastva *et. al.* (1981), Sharma and Singh (1990), Jain (1991), Singh *et. al.* (1996), Aswal (1996), Kapur (1999), Dangwal and Gour (2000) Srivastva *et. al.* (2000), Sundriyal and Sundriyal (2003) Sajim and Gosai (2006), Khan (2008), Chak *et. al.* (2009), Tantry, *et. al.* (2009), Khan, *et. al.* (2009), Khan, *et. al.* (2010), Rashid (2010), Khan *et. al.* (2011), Singh and Rawat (20011), Khan *et. al.* (2012), Mahmood and Shah (2012), Khan (2013), Sorathia 2013 and Tiwari and Kudesia (2016).

**MATERIAL AND METHOD**

The material and equipments used during the collection of plant specimens is Digital camera (12×2 mega pixel), sharp knife and a pair of secateurs for cutting, Khurpa for uprooting the plant specimens, polythene bags for collection and rubber bands for knotting the polythene bags for retention of specimens, blotting papers and newspapers for keeping specimens, plant press for pressing the specimens, forceps, needles, hand lens, stereoscope and measuring tape for making taxonomic descriptions, herbarium sheets for mounting specimens, naphthalene balls and 6% formalin as insect repellent, cotton threads and glue mixed with copper sulphate for fixing the specimens on herbarium sheets.

The paper is based on the data collected on the use of folk medicinal plants by tribal, rural and elder citizen of the area from January 2010 to January 2012. The author collected a total of 52 plant species from different localities of the Poonch district used for medicinal purpose by the tribal and rural people out of these 14 are used for diabetes and blood pressure. All the plants found in a particular area used for medicinal purpose were collected and the precise location of each plant

was recorded on a separate note book. Photographs of the plant have also been taken in their natural habitate to maintain the proper record Fig. 1-6. Our study was guided by the following question. Which is the most important plant species used for the treatment of different diseases? Do you know this plant or does this plant have some use (if already collected by the author)? Have u ever used this plant? Is there any substitute for this plant? What is the local name of this plant? And what is the method of preparation and mode of consumption of this plant on a particular disease? The informants who were considered to be experts in plants and their use were selected. The peoples who reported the highest no of plants used for medicinal purpose were selected and the information matching with four to five persons were considered authenticated.

**Table 1:** Botanical name and Local Name of Ethnomedicinal plants in bract followed by Family, Occurrence, collection site and Method of Preparation

S.N.	Bot. Name	Family	Occurrence	Coll. Site	Method of preparation and mode of use
1	<i>Aconitum heterophyllum</i> Wall ex Royle. (Ptrees)	Ranunculaceae	Endangered	Way to nurpur gali	Root powder is given orally on diabetes and blood disorder.
2	<i>Argyrolobium roseum</i> Royle. (Local name: Baguni)	Fabaceae	Critically Endangered	Roadside chatral	Powder of whole plant is given orally on diabetes.
3	<i>Berberis aristata</i> DC. (Local name: Kala Simlu, Kimlu)	Berberidaceae	Endanered	Poshana	One cup of decoction of root bark or 3-5 gm powder is given orally on diabetes.
4	<i>Berberis lycium</i> Royle. (Local name: Simlu)	Berberidaceae	Common	Gursai	3-5 gm powder or one cup decoction of root or stem bark is given orally on diabetes and blood disorder.
5	<i>Dioscorea bulbifera</i> Linn. (Local name: Kithiganda, Kalaganda, Chachla ganda)	Dioscoreaceae	Common	Pathanatir	About 5 gm powder of tuber is given orally along with water on diabetes and blood disorder.
6	<i>Delphinium denudatum</i> wallich ex. Hook. f. Thomson (Local name: Nirbisi)	Ranunculaceae	Critically Endangered	Lundhi dhok	Powder of root is given orally on blood disorder.
7	<i>Oxytropis sp</i>	Fabaceae	Common	Kalaban	Sap or powder of whole plant is given orally on diabetes.
8	<i>Picrorhiza kurrooa</i> Royle. (Local name: Kour, Kutki)	Scrophulariaceae	Endangered	Ghass meadow	Powder of root is given orally on diabetes and blood disorder.
9	<i>Prinsepia utilis</i> Royle. (Local name: Phulwara)	Rutaceae	Common	Pathanatir	Leaf powder is given orally.
10	<i>Sarcococca saligna</i> (D.Don) Muell.-Arg. (Local name: Bansathra)	Buxaceae	Common	Nangalban	Powder of root bark is given orally.
11	<i>Swertia cordata</i> (G. Don) C.B. Clarke. (Local name: Chirata)	Gentianaceae	Common	Hill kaka	Juice of whole plant is given orally.
12	<i>Melia azedarach</i> Linn. (Local name: Drek, Bakain)	Maliaceae	Common	Salwhaha	Leaf powder is given orally on diabetes and blood disorder.
13	<i>Gerbera gossypina</i> Royle. (Local name: Kough)	Asteraceae	Common	Pathanatir	Sap of whole plant is given orally.
14	<i>Ziziphus vulgaris</i> Linn. (Local name: Broi)	Rhamnaceae	Common	Kalaban	An equal quantity of the leaves of <i>Ziziphus vulgaris</i> , tubers of <i>Dioscorea bulbifera</i> and root powder of <i>Berberis lycium</i> is powdered and stored in a glass bottle. About 5 gm of this powder is given daily.

## RESULT

It has been observed that a total of 14 medicinal plant species are used by tribal people as folk medicine in the study area belonging to 13 genera and 13 families. Three species of plant are highly endangered and need immediate attention for their conservation. There is roughless extraction of these species by the tribal people for the folk medicinal purpose as well as to sale them in the market. The most common plant parts used are root followed by whole plant leaves and tuber. The

detailed pharmacological activities of some plants are still required to be investigated whereas mode of administration is oral. The collected folk medicinal plants have been arranged alphabetically with their botanical name and local name in bract followed by family name, Status, collection site and method of preparation in the table given below. The collected ethno medicinal plants have been enumerated in table 1 serial wise followed by botanical name with local name in bract, family, occurrence, parts used, method of preparation and mode of consumption. Photographs of Some Folk Medicinal plants are given blow-

**Fig. 1:** *Argyrolobium roseum*



**Fig. 2:** *Dioscorea bulbifera*



**Fig. 3:** *Oxytropis sp.*



**Fig. 4:** *Swertia cordata*



**Fig. 5:** *Picrorhiza kurrooa*



**Fig. 6:** *Gerbera gossypina*



**DISCUSSION**

The documentation and analysis of traditional knowledge about the plants which is the outcome of experiences, passed on to successive generations of the tribal and rural people have been an integral part of botanical research and magnifies a great lacuna of knowledge about the floristic diversity and its medicinal importance (Khan, *et al.*, 2012). The triangle of human beings, animals and plants existed for ages and has given rise to intense relationship and consequently a rich tradition in many regions of the world). Due to its varied topography, floristic diversity and predominantly different sects of tribal population and strong agriculture base, the district has provided a good situation for the study of medicinal plants used in folk medicine. The traditional health care system as practiced in the region consists of two system; classical stream and folk stream. The folk stream system is based on oral traditions practiced elderly village people and tribal communities (Non Codified system- NCS) whereas classical stream is based on theoretical knowledge, experimental and philosophical explanation provided by many learned physician of early time like charak, Sushruta, Galen and Rhazes etc (Codified System- CS).

**CONCLUSION**

The method of using the plants varied according to the nature of ailments. The traditional health care system is facing serious challenges because of the migration of younger people to the cities for taking up of employment, breakage of joint family system, due to which the indigenous knowledge which is confined to the older experienced people which otherwise not documented may be lost forever. The traditional healers do not pass their knowledge to other peoples as it is the only source of income to their family. Increasing population, tourism, cutting of roads, poverty and demand of pharmaceutical industries are continuously posing threat to the bioresources particularly medicinal plants used in indigenous practices. The method of treatments is totally traditional, very effective and came from their ancestors through the word of mouth. These formulas can help scientists, researchers, pharmacologists and pharmaceutical companies for inventing new drugs and further study. The present work highlights 10 commonly occurring medicinal plants 3 endangered, 2 critically endangered and 9 species in Poonch district of Jammu and Kashmir. The paper suggests immediate conservation endangered medicinal plants of the district.

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