



Studies on Traditional Knowledge of Ethnomedicinal Plants in Jawalamukhi, Himachal Pradesh, India

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Abstract

Himachal Pradesh, a western Himalayan state is a rich store house of medicinal plants. The people of the state have great faith in effectiveness of medicinal herbs. This traditional system of medicine is fast disappearing due to relatively low income in this tradition and scarcity of written documents. The present study was carried out to explore traditional medicinal knowledge of plants of Jawalamukhi shakti peeth, Himachal Pradesh. It was found that 25 different plants belonging to 20 families are used to treat various diseases.

Keywords: Traditional knowledge, Medicinal plants, Jawalamukhi

Introduction

Ethnobotany is the study of relationship between plants and people¹. Since prehistoric times medicinal plants have been used virtually in all cultures as a source of medicine. The main traditional medicinal system includes ayurveda, sidha and unani. The rigveda, dating between 3500B.C. to 1800B.C, is the earliest recorded information on medicinal plants². India is one of the 17 mega biodiversity countries in the world. It has 45000 plant species, out of which 15000-20000 plants have medicinal values³. In India, plants have been used for medicinal purposes since ancient time, as mentioned in Ayurveda⁴. The luxurious and diverse flora of India represents an invaluable repository of medicinal plants⁵. Medicinal plants have served as the main source of medicine in India⁶. Medicinal plants are used for preventive, promotive and curative purposes. Medicinal plants have been preliminary selected on the basis of local traditional knowledge⁷. The traditional system of medicine along with folklore tradition continues to benefit a large section of the population, especially in rural areas, despite the arrival of the modern medicine. The traditional knowledge of herbs is famous among the indigenous and local people⁸. The traditional healers are the main source of information on medicinal importance of plants⁹. The rural population has immense faith for traditional and magical herbs. The rural people have traditional indigenous knowledge about the use of medicinal plants to cure various diseases. Traditional indigenous knowledge comprises practices based on observations¹⁰.

During the last few decades, there has been an increasing interest in the study of medicinal plants and their indigenous uses in different parts of the world. Medicinal plants have been used for research in both systematic and advanced field of plant sciences¹¹. Documentation of such indigenous knowledge is

essential for conservation and utilization of biological resources¹².

The Himalaya have great wealth of medicinal flora and traditional folklore medicinal knowledge. Himachal Pradesh, a Western Himalayan state is a reservoir of medicinal plants. Himachal Pradesh is also well known medicinal plant hot spot in the western Himalaya that has rich diversity of flora¹³⁻¹⁴. Ethnobotanical work in Himachal Pradesh was done by several workers¹⁴⁻²⁰.

Jawalamukhi, is a temple town located in tehsil Jawalamukhi of district kangra, Himachal Pradesh. It lies between 76°32' East longitude and 31°88' North latitude. This holy place is one of the Shakti peeths of India and is famous for temple dedicated to goddess Jawalamukhi, the deity with flaming mouth. The track is covered by Kalidhar range and the elevation is 500-650meters above sea level. This region is rich in diverse flora and suitable for ethnobotanical exploration. Keeping in mind, the medicinal importance of plants among local people, the present study was undertaken to study Ethnobotany of Jawalamukhi, District Kangra.

Methodology

The study area, Jawalamukhi is situated in the Kangra district, Himachal Pradesh (figure-1). Ethnomedicinal data was collected according to the methodology suggested by Jain and Goel²¹. Several ethnobotanical survey was conducted during the period of 2012-2013. Local healers called voids, gujjar community, native people and resource persons mainly woman, using medicinal plants for curing various diseases were interviewed for documenting the information in their local dialect (Kangari).

The collected specimens were identified taxonomically with the help of Flora Simlensis²² and Flowers of the Himalaya²³. The Department of Biosciences, Himachal Pradesh University (Shimla), Institute of Integrated Himalayan Studies, Himachal Pradesh University (Shimla) and Forest Research Institute, Shimla were also visited for verification of identified plants. Data was tabulated with plant name, Family, local name, part used and folk use (table 1).

Results and Discussion

In the present study, 30 plants species belonging to 22 families were reported after undertaking the survey and having conversation with elder persons of various age groups (figure 4 and 5). It was found that dominated medicinal plants of this region are main source of primary health care (table 1). Majority

of the elder persons have sound knowledge of medicinal plants and use these plants in their daily life. These plants are used in the forms of decoction, juice, powder, paste and whole plant extract. Plants of family Euphorbiaceae were largely represented (5 sp.) followed by Asteraceae, Solanaceae, and Menispermaceae (2 sp. each). The rest of the families recorded one species only (figure 2). These medicinal plants are mainly used for the treatment of mouth ulcer, body pain, cough, bronchitis, piles, asthma, flatulence, pimples, dysentery, constipation, headache, stomache, leucoderma, gum problem, knee pain, tetanus and wounds healing. Leaf was the most widely used plant part accounting for 14 species in a total of 30 reported plants. This was followed by root and seed (6 species each), stem (3 species), whole plant and flower (2 species each) and inflorescence (1 species) (figure 3).



Figure-1
Location Map of Jawalamukhi (District Kangra, Himachal Pradesh)

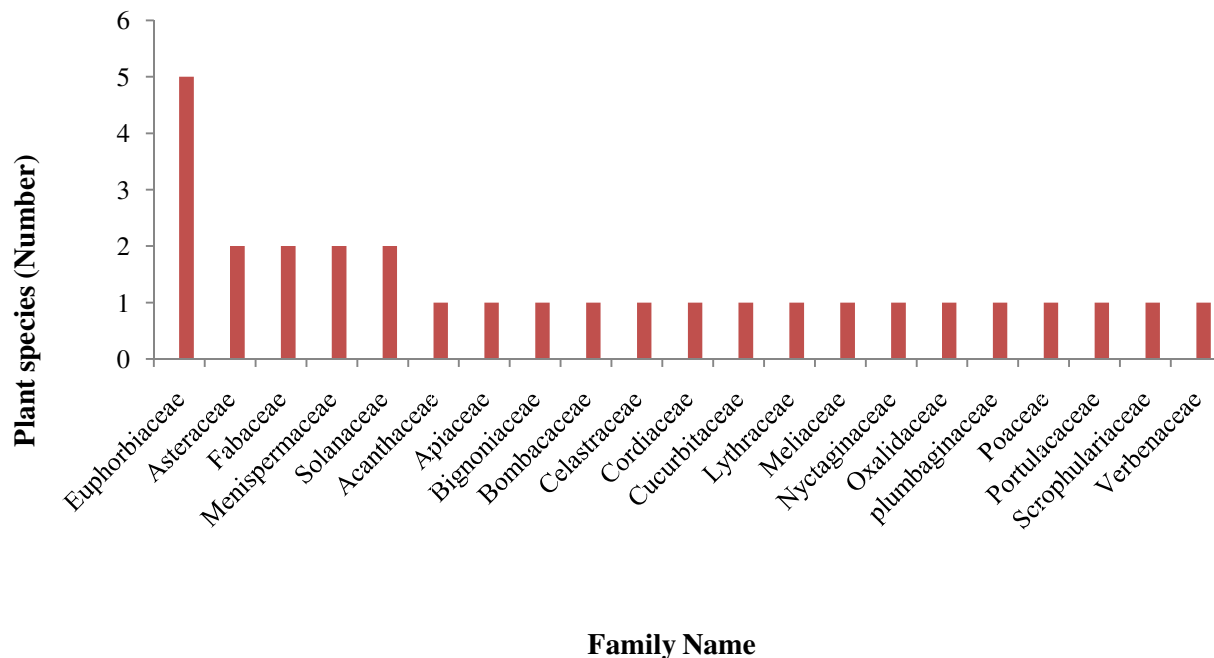


Figure-2
 Family wise distribution of ethnomedicinal plants recorded from Jawalamukhi (H.P.)

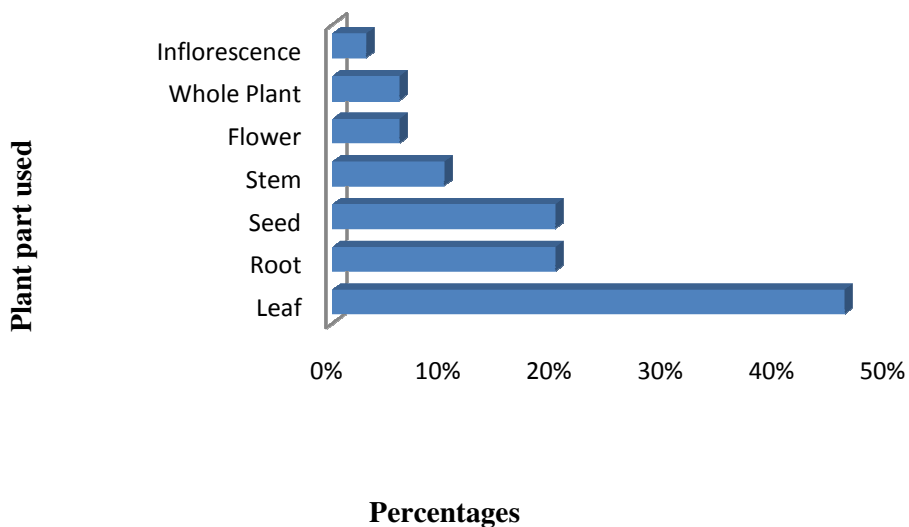


Figure-3
 Use of different plant parts for the treatment of various diseases recorded from Jawalamukhi (H.P.)

Table-1
List of plant used as traditional medicine recorded from Jawalamukhi (H.P.)

Sr. No.	Botanical Name	Vernacular Name	Family	Part Used	Ethnobotanical uses
1	<i>Achyranthes aspera</i> Linn.	Puthkanda	Amaranthaceae	Leaf	Leaves chewed for mouth ulcer
2	<i>Adhatoda vasica</i> Nees	Basuti	Acanthaceae	Leaf	Poultice of the leaves used for body pain
3	<i>Boerhavia diffusa</i> Linn.	Itsit	Nyctaginaceae	Root, Leaf	Root paste mixed with honey to cure cough. Leaves used as vegetables, useful for body pain
4	<i>Bombax ceiba</i> Linn.	Simal	Bombacaceae	Root	Roots used for asthma and piles
5	<i>Bryonopsis laciniosa</i> Linn.	Shivlingi	Cucurbitaceae	Seed	Seeds used for fever and flatulence
6	<i>Butea monosperma</i> (Lam.) Kuntze	Plah	Fabaceae	Seed	Seeds powder given to expel worms
7	<i>Celastrus paniculatus</i> Willd.	Sankhiran	Celastraceae	Seed	Powdered seed used in cough and bronchitis
8	<i>Centella asiatica</i> Linn.	Brahmi	Apiaceae	Leaf	Powdered leaves with cow's milk improve memory
9	<i>Cissampelos pareira</i> Linn.	Patindu	Menispermaceae	Leaf	Heated leaves applied to cure pimples Leaves useful against dysentery
10	<i>Cordia dichotoma</i> Forst. f.	Lasura	Cordiaceae	Leaf	Leaf ashes mixed with honey recommended for constipation
11	<i>Cymbopogon martini</i> Stapf.	Makora gha	Poaceae	Root, Leaves	Roots and leaves as an effective remedy for urine blockage
12	<i>Eclipta alba</i> (Linn.) Hassk.	Bhringraj	Asteraceae	Leaf	Dry leaves mixed with black pepper used against piles. Leaf paste applied on stomach to cure stomach
13	<i>Euphorbia geniculata</i> Ort. ex Boiss.	Badi dudhli	Euphorbiaceae	Leaf	Leaf paste used to cure leucoderma
14	<i>Euphorbia hirta</i> Linn.	Choti dudhli	Euphorbiaceae	Leaf	Chewing of leaves used for dysentery
15	<i>Jatropha curcas</i> Linn.	Jablota	Euphorbiaceae	Stem	Twig used as a toothbrush, good for dental caries
16	<i>Melia azedarach</i> Linn.	Drek	Meliaceae	Seed	Dried seed powder used for bloody piles
17	<i>Mucuna pruriens</i> DC.	Gajal bael	Fabaceae	Seed	Seeds fried in cow's ghee and used for obesity. Seed soup used for bodyache
18	<i>Oroxylum indicum</i> Vent.	Tatpalanga	Bignoniaceae	Root	Root decoction prescribed for mouth ulcer
19	<i>Oxalis corniculata</i> Linn.	Malori	Oxalidaceae	Leaf	Leaf paste used for gum problems
20	<i>Phyllanthus niruri</i> Linn.	Bhumiamla	Euphorbiaceae	Whole plant	Juice of whole plant mixed with doob grass recommended for ulcer
21	<i>Plumbago zeylanica</i> Linn.	Chitra	Plumbaginaceae	Root	Root paste used for toothache
22	<i>Portulaca oleracea</i> Linn.	Kulfa	Portulacaceae	Leaf	Leaves used as vegetables and good source of VitaminC
23	<i>Putranjiva roxburghii</i> Wall.	Patajen	Euphorbiaceae	Seed	Seed paste useful against headache Powdered seed used for knee pain
24	<i>Solanum nigrum</i> Linn.	Khatmalu	Solanaceae	Whole plant	Decoction of whole plant used for liver infection and kidney stones
25	<i>Solanum viarum</i> Dun.	Jungali bhindi	Solanaceae	Root	Roots used for piles
26	<i>Spilanthes oleracea</i> Linn.	Akarkara	Asteraceae	Inflorescence	Inflorescence used for gum inflammation
27	<i>Tinospora cordifolia</i> (Willd) Miers.	Giloe	Menispermaceae	Stem	Stem decoction given to treat diabetes and arthritis
28	<i>Verbascum thapsus</i> Linn.	Jungali tambakoo	Scrophulariaceae	Flower, Leaf	Smoke of flowers and leaves useful for asthma
29	<i>Vitex negundo</i> Linn.	Bana	Verbenaceae	Leaf	Boiled leaves used for body swelling Leaf juice used against tetnus
30	<i>Woodfordia fruticosa</i> Kurz.	Dhavi	Lythraceae	Flower, Stem	Flowers powder used against dysentery Stem paste used for healing wounds



Achyranthes aspera



Adhatoda vasica



Boerhavia diffusa



Bombax ceiba



Bryonopsis ceiba



Celastrus paniculata



Centella asiatica



Cissampelos pareira



Eclipta alba



Euphorbia geniculata



Jatropha curcas



Mucuna pruriens

Figure-4



Oroxylum indicum



Oxalis corniculata



Phyllanthus niruri



Plumbago zeylanica



Portulaca oleracea



Putranjiva roxburghii



Solanum viarum



Spilanthes oleracea



Tinospora cordifolia



Verascum thapsus



Vitex negundo
Figure-5



Woodfordia fruticosa

Conclusion

The present study shows that Jawalamukhi region is rich with valuable medicinal flora and people are enriched with folk traditional knowledge about these herbs. Though this knowledge is passing orally from one generation to another but it has not been documented yet. So documentation of this knowledge is necessary for safeguarding this valuable information for the well being of future generation. All these plants need to be evaluated through phyto and pharmaco investigation to discover their potentiality as drugs. The present study will provide new incentive to the traditional system of healthcare and also will be helpful for researcher and pharmaceutical industries to find out the other uses of plants which would be helpful to modern healthcare system.

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