GUEST PAPER.

Ethnomedicinal Wisdom Among Local Tribes in Hamirpur Valley, Himachal Pradesh, India

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Abstract

The current investigation was focused at documentation, analysis and interpretation of ethnomedicinal phyto wisdom in Hamirpur District of Himachal Pradesh. The impoverished tribal and rural people of Hamirpur District (Himachal Pradesh, India) do not receive satisfactory primary healthcare. They have crudely been still exploiting traditionally the medicinal plants existing in their surrounding environment for diverse purposes including ethnomedicine use. The objective of the study was to document ethnobotanical knowledge primarily of notable herbs employed by the different backward people, whether tribal or rural, in the area under study. Ethnomedicinal data was accessed through structural interviews, and discussions with the tribal/rural informants, healers, medicine-men/women, etc. (with age between 45-65). Minimum five to eight informants were taken into consideration for each claim. This investigation brought on record that people of the study area (Hamirpur) generally utilize about 50 plants species belonging several distinct families. Different plant parts such as leaves, flowers, fruit, stem-bark and root are most commonly employed. A fair wide range of diseases are treated by people of Hamirpur district using local medicinal plants. These ethnomedicinal claims may aid in finding novel phytoconstituents for welfare of mankind. The data would be useful for further scientific exploration.

Keywords: Ethnomedicinal, Plants, Hamirpur

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Introduction:

The Hamirpur district located is between 31°25'N and 31°52'N and between 76°18'E and 76°44'E. It is situated in the south western part of Himachal Pradesh, touched by lower Himalayas (400 meters to 1,100 meters). The major hill ranges of the district are known as Jakh Dhar and Sola Singhi Dhar covered with dense forest constituting medicinal plants. Majority of population of Hamirpur live in the rural areas and mostly are agriculturist. They grow wheat, Barley, Gram, Masar etc. in the Rabi season Maize, Paddy, Blackgram, etc. in the Kharif season. For the purpose of their ailments the tribal people of Hamirpur medicinal rely upon these plants (http://en.wikipedia.org/wiki/Hamirpur,_Hima chal_Pradesh, Arya et al 2011, Khare 2007, Kiritikar 1999, Verma and Singh 2008, Vogel 2002, Nadkarni and Nadkarni 2005).

Materials and Methods:

Sample Collection and Preservation:

Field trips were arranged in order to collect information about the Ethnomedicinal usage of plants by the local people during 2012 in Hamirpur District of Himachal Pradesh, India. Standard methods (WHO guidelines) were followed with regard for collection of plant materials drying, mounting, preparation and preservation of plant specimens. Voucher specimens of medicinal plants were collected, prepared and identified.

Plants with their correct nomenclature were arranged by family name, common name, ethnomedicinal uses. The identification and nomenclature of the listed plants were based on The Flora of Himacal Pradesh, India.

Methodology:

Knowledgeable elders/informants with 45-65 years of age were usually contacted, including the traditional healers, medicine men and women in the tehsils. Information regarding geography, main routes, forests, tribal communities, language and dialects, etc. was obtained. They also accompanied in the field study for collecting plant samples. Discussions were held and personal interviews were conducted to obtain data about ethnomedicinal plants, or plant products, local plant names, methods of preparation of medicine and their administration, dosage and their timing, age.

Ethnomedicinal Knowledge:

A questionnaire method was adopted for documentation of ethnomedicinal knowledge. The interviews were carried out from local community to document local name and ethnomedicinal uses. About 500 informants have been interviewed on random basis. The indigenous medicinal plants having traditional knowledge of utilization among the people have been selected as reference specimens. The final compiled data have been mentioned in Table 1 given below.

Table 1: Ethnomedicinal uses of some plants of Hamirpur Valley of Himachal Pradesh, India

| Botanical name | Family name | Common name | Local name | Part used | Ethnomedicinal use | Photograph |
|-------------------------|---------------|------------------|------------|-----------------|--|------------|
| Artemisia maritima | Compositae | Wormseed | Kirmala | Roots, stems | Treatment of ascaris and oxyuris infections | |
| Quercus glauca | Fagaceae | Grey oak | Ban | Oak bark | Used as astringent, the decoction of the bark is used in diarrhoea and dysentery | |
| Agave cantala | Agavaceae | Century plant | Ranban | Leaves | Antibacterial activity | |
| Dioscorea deltoidea | Dioscoreaceae | Wild yam | Khitha | Root | Used for intestinal colic (and indigestion), to soothe diverticulitis | |
| Solanum xanthocarpum | Solanaceae | Wild eggplant | Hadaq | Fruit | Stimulant, expectorant, diuretic, laxative, febrifuge | |
| Stevia rebaudiana | Compositae | Honey leaf | Mithipatti | Leaves | Healing and health promoting as a tonic, antifungal and antibacterial | |

| Salvia officinalis | Labiatae | Sage | Salva | Flower | Hypoglycaemic, gingivitis, antiasthmatic | |
|-------------------------|--------------|-----------------------|--------------|---------------------|--|--|
| Coronopus didymum | Brassicaceae | Lesser swine-cress | Halim | Leaves | Wound-healing, anti- inflammatory | |
| Sisymbrium sophia | Brassicaceae | Flix weed | Jangli saron | Leaf, flower | The plants has been used externally for ulcers | |
| Solanum nigrum | Solanaceae | Black nightshade | Pamola | Berries, flowers | Prescribed in cough and cold | |
| Spilanthes oleracea | Asteraceae | Paracress | Akarkaraa | Seeds | Used in inflammation of jaw- bones and caries shows a strong sialogogic action | |
| Taraxacum officinale | Compositae | Common dandelion | Dudhal | Root | Diuretic, cholagogue, pancreatic and bile duct stimulant | |

| Camellia sinensis | Theaceae | Tea | Cha | Leaves | Stimulant, diuretic,astringent | |
|--------------------------|----------------|-----------------------------|------------------|---------|---|--|
| Vanda roxburgh | Orchidaceae | Vanda brunnea | Rasana | Roots | Antipyretic, anti- inflammatory, tranquilizer | |
| Ageratum houstonianum | Asteraceae | Goat weed | Chhota phulnu | Leaves | Anti-inflammatory, antibacterial, antifungal, styptic | |
| Aster falcatus | Asteraceae | White fall aster | Jadi | Flowers | As an antimicrobial | |
| Berberis aristata | Berberidaceae | Holly leaved berberry | Kaimblu | Flowers | Antiprolific, antipsoriatic, alterative | |
| Bidens pilosa | Compositae | Hairy beggars tick | Lumb | Leaves | Applied to ulcers and swollen glands | |
| Chenopodium album | Chenopodiaceae | Fat hen | Bathuaa | Seeds | Stimulant, diuretic, carminative, antispasmodic | |

| Cuscuta reflexa | Convolvulaceae | Doddar | Dodan | Herb | Hepatic, laxative, carminative, urinary, spleen and liver disorders | |
|-----------------------|----------------|----------------------------------|------------|--------|--|-----|
| Cycas revoluta | Cycadaceae | Sago palm | Sabudana | Root | Expectorant, tonic | |
| Duranta repens | Verbenaceae | Duranta | Touran | Leaves | Antifungal (topically), lethal to mosquito larvae | |
| Oxalis corniculata | Oxalidaceae | Wood sorrel | Khat mithu | Leaves | Boiled with butter milk is a home remedy for indigestion and diarrhoea in children | |
| Polygonum bistorta | Polygonaceae | Snake weed | Villauri | Leaves | Used for internal haemorrhages, irritable bowel, diverticulosis | |
| Prinsepia utilis | Rosaceae | Himalayan cherry prinsepia | Kangore | Oil | Rubefacient and is externally in rheumatism | 000 |

| Sida cordifolia | Malvaceae | Country mallow | Bala | Seeds | For the treatment of rheumatism | |
|----------------------------|---------------|-------------------|-------------|--------------------------------|---|--|
| Polygonatum multiflorum | Liliaceae | Solomon's seal | Medaa | Leaves | Used as an infusion for pulmonary complaints | |
| Ricinus communis | Euphorbiaceae | Castor seed | Arand | Leaves, Root | In rheumatism, pain in the urinary bladder | |
| Colchicum autumnale | Liliaceae | Meadow saffron | Minminaouo | Entire plant | Anti-gout | |
| Argemone Mexicana | Papaveraceae | Prickly poppy | Liyan | Oil, leaf juice and root | Used externally for indolent ulcers and skin diseases | |
| Hibiscus rosa sinesis | Malvaceae | Shoe flower | Chini gulab | Flower | Used in impotency, bronchial catarrh | |

| Achyranthus aspera | Amaranthaceae | Prickly chaff flower | Puthkanda | Roots | Blood-purifying property, astringent, haemostatic | |
|--|-----------------|---------------------------|-----------|-------------------|--|--|
| <u>Citrullus</u> <u>colocynthis</u> | Cucurbitaceae | Colocynth bitter apple | Indrayan | Root, Fruit | Fruit used as cathartic, drastic purgative, irritant and toxic | |
| Bauhinia variegata | Fabaceae | Buddhist bauhinia | Karal | Dried buds | In diarrhoea, dysentery, worm infestation, piles and tumours | |
| Lantana camara | Verbenaceae | Wild sage | Phulnu | Leaves, fruits | The plant is considered poisonous ,cardioactive and fish poison | |
| Cassia tora | Calsalpiniaceae | Ringworm plant | Ailum | Pods | In dysentery | |

| Woodfordia fruticosa | Lythraceae | Fire-flame bush | Dhaw | Dried flower | Purifies blood, heals ulcers, haemorrhages, astringent, prescribed in haemetemesis | |
|-------------------------|----------------|--------------------|-------------|-----------------|--|--|
| Vallaris solanacea | Apocynaceae | Bread flower | Poon | Latex | Applied to old wounds and sores (mildly irritant) | |
| Plumbago zeylanica | Plumbaginaceae | Leadwort | Chitra | Root | Intestinal flora normalizer, stimulates digestive processes | |
| Barleria cristata | Acanthaceae | Barleria | Raktajhinti | Root | Given in anaemia | |

| Jasminum multiflorum | Oleaceae | Downy jasmine | Chameli | Bark | Boiled bark applied on burns | |
|-----------------------------|--------------|-------------------|---------|---------------------------------|--|--|
| Stereospermum suaveolens | Bignoniaceae | Trumpet flower | Padal | Stem bark | In oedema and retention of urine | |
| Cordia dichotoma | Boraginaceae | Sabestan plum | Lassora | Kernels | Externally applied to ringworm | |
| Bambusa bambos | Gramineae | Thorny bamboo | Beyin | Leaf bud and young shoots | Used in dysmenorrhoea; externally in ulcerations | |

| Opuntia dilleni | Cactaceae | Prickly pear | Naagphani | Fruit | Nutritious, given in whooping cough | |
|----------------------------|---------------|--------------------|-----------|-----------------|--|--|
| Medicago polymorpha | Papilionaceae | Toothed medic | Khukhni | Fruit | Sprouts of seeds used in diabetes | |
| Agaricus campestris | Agaricaceae | Meadow mushroom | Khumbi | Fruit | Diuretic, laxative, deobstructant, expectorant | |
| Indigofera oblongifolia | Fabaceae | Wild indigo | Jhil | Entire plant | Antisyphilitic | |
| Pyrus communis | Rosaceae | Common pear | Naakh | Fruits | Help in maintaining a desirable acid balance in the body | |

| Trichosanthes dioica | Cucurbitaceae | Pointed gourd | Meh | Aerial parts | Hypoglycaemic | |
|-------------------------|-----------------|---------------------|---------|-----------------|--------------------------------------|--|
| Stellaria media | Caryophyllaceae | Common chickweed | Khokhua | Leaf, flower | Antirheumatic, anti- inflammatory | |

Result: These plants having medicinal values described in this paper giving relevant wisdom to research oriented people and help a lot in carrying out new research in the field of life, and pharmaceutical sciences. Such medicinal flora is regularly used by people but they are not aware of their eternal potential to cure several ailments. This medicinal flora can be proved to be an elixir to humanity.

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