

## Indigenous herbal remedies used to cure skin disorders by the natives of Lahaul-Spiti in Himachal Pradesh

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The communication highlights the medicinal importance of some plants used to cure different skin disorders by the native people inhabiting Lahaul-Spiti district of Himachal Pradesh. Ethnomedicinal information on 18 plant species belonging to 14 families, used by the inhabitants for curing different skin disorders including boils and blisters, itching (allergy), skin infection, leprosy, skin eruptions, cuts and wounds, were recorded. Details regarding plant names, local names, family, mode of administration and ailments treated, for each species are reported.

**Keywords:** Indigenous knowledge, Herbal remedies, Skin disorders, Lahaul-Spiti, Himachal Pradesh

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Lahaul-Spiti is an integral part of Indian cold desert area of NW Himalaya located in alpine arid zone of Himachal Pradesh. The district, situated between 31°44'57"- 32°59'57"N latitudes and 76°46'29" - 78°41'34"E longitudes covering an area of 13,835 sq km, is comprised of two subdivisions, Lahaul with headquarter at Keylong and Spiti subdivision at Kaza (Fig. 1). Lahaul-Spiti is bounded by Kinnaur, Kullu, Kangra and Chamba districts of Himachal Pradesh on the South, Southwest and Northwest, and Jammu & Kashmir and Tibet on North and East. The district is thinly populated. Lahaul-Spiti also enjoys the distinction of having highest inhabitation in the world in village Gete, at an elevation of 4,270 m above mean sea level<sup>1</sup>. Lahaul-Spiti area is characterized with sparse vegetation (Fig. 2) mainly comprising of annual and perennial herbs like *Aconitum*, *Allium*, *Aquilegia*, *Arnebia*, *Astragalus*, *Dactylorhiza*, *Dracocephalum*, *Epilobium*, *Gentiana*, *Geranium*, *Polygonum*, *Potentilla*, *Rheum*, *Rumex*, *Saussurea*, *Taraxacum* and *Thymus* species and shrubs including *Artemisia*, *Juniperus*, *Lonicera*, *Caragana*, *Hippophae*, *Myricaria*, *Rosa*, and *Salix*. Natural tree cover comprising of *Abies*, *Picea*, *Pinus*, *Juniperus*, *Betula* species are found in Lahaul subdivision, while in Spiti region, trees are almost absent except poplar and willows planted around human inhabitations.

Despite, prevailing of extreme climatic conditions, Lahaul-Spiti area harbours valuable medicinal plant wealth being used in traditional systems of medicine for ages<sup>2</sup>.

The district Lahaul-Spiti is inhabited by different communities predominantly *Bodhs* or *Budhists* also known as *Lahaula* in Lahaul and *Bhot* or *Bhotia* in Spiti subdivision. Besides speaking Hindi and local dialects, *Bhoti* is the main language spoken by the natives. For healthcare, traditional herbal remedies are still primary sources in the area. Despite availability of modern medical facilities, people still depend upon locally available plant resources and traditional healers to cure different ailments. The herbal doctors locally called, *Amchis* in Spiti and *Larjes* in Lahaul, generally prescribe medicine to the patients. Among the prevailing systems of medicine, *Amchi* System of Medicine is one of the indigenous traditional systems of medicine being practiced in Lahaul-Spiti division of Himachal Pradesh for ages.

Though, the inhabitants of Lahaul-Spiti area are prone to various ailments like stomach disorders, lung troubles, and eye diseases, but various skin ailments such as boils and blisters, leprosy, itching, and skin eruption are quite visible in the area<sup>3</sup>. While exploring plant resources of Lahaul-Spiti region of Himachal Pradesh, ethnobotanical information were gathered on various plants. Among the plants reported to be used

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Fig. 1—Location map of study area

against different ailments, about 17 plant species were found to be used in curing various skin disorders by the natives. In recent past, efforts were made by various workers to document traditional knowledge from Lahaul-Spiti area but, information on medicinal plants used against a particular ailment like skin disorders, has not been attempted<sup>4-14</sup>. Therefore, the present efforts were made.

### Methodology

Several field surveys were carried out during 2002-06 in entire Lahaul-Spiti district of Himachal Pradesh to collect ethnobotanical information. Information on plants used in traditional phytotherapy were gathered by way of developing close contacts, through interviews and discussions with native people and local herbal practitioners<sup>15,16</sup>. The voucher specimens collected were identified with the help of regional flora and related literature and finally authenticated in the herbarium (BSD) of Botanical Survey of India (BSI), Dehradun<sup>17-18</sup>. The specimens were processed and deposited in the herbarium of the Institute of Himalayan Bioresource Technology (PLP), Palampur for future reference.

### Enumeration

The plants are enumerated in alphabetical order (under each disease) following family name in parentheses, local name, and uses (Figs 3-13).

#### Boils

*Aquilegia fragrans* Benth. (Ranunculaceae), *Lande, kumuk*

Uses: Flower powder paste in ghee (refined butter) is used for massage once a day for 10-15 days.

*Artemisia maritima* L. (Asteraceae), *Shoma, Atong*  
Uses: Fresh root juice is applied externally on skin.

*Cedrus deodara* (Roxb. ex D. Don) G. Don (Pinaceae), *Devdar, devdyaar*  
Uses: The heartwood oil is applied on skin to cure boils.

*Hyssopus officinalis* L. (Lamiaceae), *Tiyanku*  
Uses: Flower and leaf pastes are applied on boils.

*Inula racemosa* Hook. f. (Asteraceae), *Manuruta, Manu, Manukuth*

Uses: Paste prepared from root powder with ghee is applied twice a day for 7 days. Dried roots are chopped and boiled in water at low temperature till water turns brownish-red. One spoon of the decoction is taken daily as cure for boils.

*Juniperus communis* L. (Cupressaceae), *Bethda*

Uses: The heartwood oil is used for massage to cures boils.

*Plantago major* L. (Plantaginaceae), *Caratta, Tharma*

Uses: Slightly warmed leaves applied with mustard oil are kept on boils overnight to burst it out. It is believed that it reduces both swelling and pain.

*Rheum emodi* Wall. ex Meissn. (Polygonaceae), *Tukshu, Lichu, Artho, Chucha*

Uses: Root decoction mixed with ghee or oil is applied twice a day for 2-3 days.

*Saussurea costus* (Falc.) Lipschitz (Asteraceae), *Kuth, Shahruta*

Uses: Root paste is applied directly.

*Taraxacum officinale* Weber (Asteraceae), *Sarchen-Metok, Sirsim, koadi*

Uses: Flower decoction is taken in equal proportion with water for two days to cure boils.

*Verbascum thapsus* L. (Scrophulariaceae), *Pungchunpuru*

Uses: Paste of leaf and flower powder in mustard oil is applied on boils.

#### Wound healing

*Dactylorhiza hatagirea* (D. Don) Soo. (Orchidaceae), *Wangpo-lakpa, Thebrang*

Uses: Paste prepared from fresh rhizome is applied on wounds twice a day for 2-3 days for healing purpose.

*Fraxinus xanthoxyloides* Wall. ex G. Don) DC. (Oleaceae), *Thum*

Uses: Stem bark decoction is taken once a day for a week to cure wounds and injuries.

*Galium aparine* L. (Rubiaceae), *Zangchi*

Uses: Shade dried aerial parts powder is applied on fresh wounds and cuts directly to stop bleeding and for quick healing.

*Lindelofia longiflora* (Benth.) Baill. (Boraginaceae), *Showarag, Showara*

Uses: The leaves are burnt to obtain the ash and the ash is applied on cuts and wounds to check bleeding and for quick healing.

*Medicago falcata* L. (Fabaceae), *Kathoama*

Uses: The aerial parts paste is applied on wounds and injuries for healing purpose.

*Rheum emodi* Wall. ex Meissn. (Polygonaceae), *Tukshu, Lichu, Artho, Chucha*

Uses: Root decoction mixed with refined butter or oil is applied for 2-3 days to cure injuries.

#### Infections and itching

*Arnebia euchroma* L. (Boraginaceae), *Khamed, Khamet*

Uses: The roots extracted in mustard or apricot oil are applied on skin for treating skin infections.

*Carum carvi* L. (Apiaceae), *Mathui, Gronae*

Uses: Powdered seeds are roasted in *desi* ghee. The preparation is applied on skin for a week to cure skin infection, locally called *yiring*.

*Cedrus deodara* (Roxb. ex D. Don) Loud. (Pinaceae), *Devdar*

Uses: Heartwood oil is used for massage to cure skin itching.

*Juniperus communis* L. (Cupressaceae), *Bethda*

Uses: Regular massage of heartwood oil is considered effective against both skin itching and infections.

#### Skin eruptions

*Hyssopus officinalis* L. (Lamiaceae), *Tiyanku, Tango*

Uses: The paste prepared from the flowers and leaves is applied on skin.

*Inula racemosa* Hook.f. (Asteraceae), *Manuruta, Manu, Manukuth*

Uses: Paste prepared from root powder mixed with refined butter is applied twice a day for a week in skin eruptions.

*Rheum emodi* Wall. ex Meissn. (Polygonaceae), *Tukshu, Lichu, Artho, Chucha*

Uses: Root decoction is considered effective if applied externally twice a day for 2-3 days.

#### Blisters

*Inula racemosa* Hook.f. (Asteraceae), *Manuruta, Manu, Manukuth*

Uses: Paste prepared from the root is applied on skin for 7 days.

*Saussurea costus* (Falc.) Lipschitz (Asteraceae), *Kuth, Shahruta*

Uses: Paste prepared from root is recommended for external applications.

*Taraxacum officinale* Weber (Asteraceae), *Sarchen-Metok, Sirsim, koadi*

Uses: The inflorescence decoction is taken orally for treating blisters.

#### Leprosy

*Saussurea costus* (Falc.) Lipschitz (Asteraceae), *Kuth, Shahruta*

Uses: The root paste is applied externally for 7-8 days for the treatment of leprosy locally called as *Kod/Jai*.

#### Discussion and conclusion

It has been revealed that of the 18 plant species (belonging to 14 families) reported to cure skin disorders, 11 species were found to be used to cure boils, 6 for wound healing, 4 for skin infection, itching, and 3 species each for skin eruptions and blisters and one for leprosy by the native people. It indicates that among the skin diseases, occurrence of boils disorder is common in Lahaul-Spiti region, which may be due to high radiation and other climatic conditions prevailing in the area. As far as plant part utility is concerned, roots and flowers / inflorescence (4 species each) are used commonly followed by leaves (3 sp.); heartwood and aerial parts (2 sp. each). Of the 18 species reported, only seven taxa like *Cedrus*, *Hyssopus*, *Inula*, *Juniperus*, *Rheum*, *Saussurea* and *Taraxacum* sp. were to cure more than one skin disorders, which indicates that these species are relatively more effective. Although, indigenous medicinal uses of some of the species reported here for skin disorders, are known from different parts of the Himalayan region including Lahaul-Spiti area, but scrutiny of the relevant literature revealed that medicinal uses of *Aquilegia fragrans* against boils, *Fraxinus xanthoxyloides*, *Galium aparine* and *Medicago falcata* for wounds and injuries, *Hyssopus officinalis* for boils, *Inula racemosa* for boils, skin eruptions and blisters, *Juniperus communis* for boils, skin infection and itching, and *Carum carvi* against skin infection and itching are recorded to be lesser known<sup>4-14,19-26</sup>.

It has been observed that native people of Lahaul-Spiti area have great faith in their traditional system



of medicine and still depend upon natural plant resources to cure various ailments. But, it has been seen that new generation is almost ignorant or least interested in ancient traditional knowledge of healing. Therefore, there is a need to create awareness among youngsters, so that rapid erosion of the valuable ethnic knowledge about plant resources can be checked to a certain extent. It is felt that intensive and disease wise documentation of plant related indigenous knowledge throughout remote high mountain area needs to be completed first. Subsequently, based on the leads obtained, biochemical evaluation of some plants have to be taken up and cultivation of certain valuable species like *Arnebia euchroma*, *Artemisia maritima*, *Carum carvi*, *Dactylorhiza hatagirea*, *Hyssopus officinalis*, *Rheum emodi* and others need to be promoted in the line of *Saussurea costus* and *Inula racemosa*, which are being cultivated in Lahaul areas since ages.

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