

Folk uses of some medicinal plants from North Sikkim

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The local inhabitants in the North Sikkim area have inherited rich traditional knowledge of the use of many plants or plant parts for the treatment of their common diseases. They often have the information on how to use the plants and to take or to apply the medicine for different diseases and health care. Information on medicinal uses of 15 types of tubers, rhizomes or roots used by the inhabitants of North Sikkim, viz. Lepchas, Nepalese and Bhutias is presented here.

Keywords: Folk uses, Medicinal plants, North Sikkim, Lepchas, Nepalese, Bhutias.

Sikkim is endowed with rich ethnic culture as well as immense biological diversity. North Sikkim is the largest district and provides a wide range of ethnic practices and rich floral and faunal wealth. The presence of great Kanchenjunga mountain (8598 m) gives great beauty to the region. North Sikkim lies between latitude 27°29' to 27°31'24" N and longitude 88°31'30" to 88°33'11" E having a total area of 4226 sq. km. It touches the international boundaries with Nepal in the West and with China (Tibet) in the North and East. The southern part touches the boundary of West, South and East districts of the state from West to East, respectively. The elevation ranges from 1000 to 8598 m. Temperature varies from 0° to 20° C, and rapidly decreases with the increase in altitude. This region receives average rainfall of about 3500

mm per annum and heavy snowfall is not uncommon in higher elevations. Zemu glacier, the largest one in Sikkim is present in this district and with other glacier system (Lhonak, Hidden, Changsang, Tenbawa khangse, etc.) is the water source of many perennial rivers. The great Tista river originates from Chholamu lake above Thangu. Other main rivers are Lhonak Chu, Zemu chu, Yumthang chu, Lachung chu, Sebozung chu, etc.

North Sikkim is a cornucopia of ethnic people, viz. the Lepchas, Sherpas, Bhutias, Nepalese, etc. Lepchas are the original inhabitants of Sikkim living in the North district (Dzongu area). They are of Mongoloid origin, quite innocent and generally prefer solitude¹. They mainly practice farming. The major crops are large cardamom, paddy, maize, millet, potato, etc.

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The tribal people possess rich ethnic knowledge regarding medicine, food, etc. They believe in both evil and good spirit. The lakes, caves and rocks are sacred to them. They are extremely hard working and can survive without the help of modern facilities. But interestingly the forest with which they have had a long relationship and which provides them food and shelter as well as a validating base to their abiding faiths and beliefs is gradually dwindling and they do not prefer to go for hunting and fishing any more and hence their bows, arrows and nets are going out of use.

The knowledge of the communities, mainly Lepchas, Nepalese and Bhutias, living in North Sikkim appears to be eroding owing to the gradual changes in the life style of these communities. Thus, the traditional knowledge may be lost due to change in the socio-economic pattern.

Very little information is available about the folk medicines of the communities of North Sikkim except the information presented in recent works²⁻⁵.

The uses of tubers, rhizomes and roots of 15 plants are presented in this paper.

Methods of survey

The survey has been conducted during the plant collection trips in and around the North Sikkim district during 2000 - 2002. The information on medicinal uses is provided by Mr. Ph. Kalanjoy Singh (a local medicineman) and verified directly from patients by the authors.

The plants are arranged in alphabetical sequence. The methods of preparation, dose and duration, etc. are also given.

Some previous information about the use of the studied plants is also added.

Enumeration

Astilbe rivularis Buch.-Ham. ex D. Don (Saxifragaceae)

Nepali—Buro okhati, Bansupari.

A few pieces of fresh rhizomes are used either for infusion, or poultice or as powder for the treatment of toothache. The application is done till recovery. A decoction is also prepared from a few pieces of rhizomes and is taken 1-2 times in a day at a dose of one cup to treat body pain during childbirth; it is continued for a few days till cure. The decoction is also taken for 1-2 days to check internal bleeding as well as pain. It is generally prescribed to mix 1 teaspoon of ghee with 100 gm of rhizomes and taken 1-3 times in a day and continued for 3 days during childbirth to induce uterine contraction.

The use of root bark in body ache and menstrual disorder by the tribal communities of Sikkim is also reported². Leaves are used as blood purifier.

Curculigo orchoides Gaertn. (Hypoxidaceae)

A paste is prepared from rhizomes and is used externally as poultice in skin complaints. Infusion of rhizomes (5-10 gm per dose) is used twice daily to treat piles and gastritis. Decoction of rhizomes (40-50 gm at a time) is taken twice daily in the same problem. Powder form of the dried rhizomes mixed with limewater is also taken twice daily as a remedy for gastritis.

The use of rootstocks by Lodhas, Santals and Mundas is reported for the

treatment of stomach ulcer, white discharge in women, dyspepsia, and as tonic against impotency⁶. In Philippines this plant is used for the treatment of skin diseases. It is also used by the tribals in eye diseases in veterinary⁶.

This plant is used in traditional medicine in several combinations for the treatment of sexual impotency, urinary and venereal diseases and as a general health tonic, in asthma, jaundice and for promotion of urination⁷.

Dactylorhiza hatagirea (D. Don) Soo.

(Orchidaceae)

Nepali — Panch-anguli.

The tuber is made into a paste (1-2 gm per dose) and is prescribed twice daily in case of gastric complaints, jaundice, body ache, bone fracture to help in bone marrow formation. It is taken till recovery. The paste of the tuber is also used as tonic and salep.

Hippophae salicifolia D. Don

(Elaeagnaceae)

The fresh root nodules are chewed raw to check vomiting tendency. The roots are also chewed by the Lepcha and Nepalese communities to remove foul smell from mouth.

Meconopsis simplicifolia (D. Don) Walp.

(Papaveraceae)

Bhutia — Upal mentook.

The rhizomes are used in powder form or as decoction as tonic in renal complaints. The powder of rhizomes is prepared (1-3 gm per dose) and is taken 2-3 times daily. The decoction of rhizomes (10-20 gm per dose) is prepared

and is taken orally 2 times daily. The treatment is continued till remedy.

Nardostachys grandiflora DC.

(Valerianaceae)

Nepali — Jatamansi.

Powder of rhizomes (1-2 gm per dose) is taken orally twice or thrice daily in case of bronchial complaints, cold and cough, fever, heart complaints, liver complaints and in urinary troubles.

It is long been known as medicinal plant and variously used in fever and gastric disorder². Another plant, closely related to this species, *N. jatamansi* DC. is traditionally used to treat nervous disorders. The alkaloid jatamansone is a wonderful sedative and depressant acting on the central nervous system of human body^{7,8}.

Onosma hookeri C.B. Clarke

(Boraginaceae)

Nepali — Laljari; Bhutia — Bemu.

Oil is extracted from roots and is used externally as hair tonic and as antidandruff agent. The root is kept in mustard oil and the oil is used externally to treat untimely falling of hairs³.

Osbeckia nepalensis Hook.

(Melastomaceae)

Nepali — Lattey.

A decoction of roots is used in urinary complaints and diabetes. Decoction is taken 2-3 times daily taking 50-100 gm roots each time. White-flowered plant is considered more effective than pink-flowered one.

The paste of leaves and flowers is also used in foot sores of cattle².

Paris polyphylla Smith (Liliaceae)

Nepali — Bako.

Tuberous roots in the form of paste or poultice are used externally in skin diseases, cuts and wounds and in any poisonous bite. Powder or infusion of roots is taken orally in the treatment of diarrhoea and dysentery. Roots (1-2 gm) are taken as one dose and 2-3 doses are taken daily. The roots have very strong effect; over-dose may cause harmful effect and thus this treatment is done very carefully and cautiously.

Picrorhiza scrophulariaeflora Pennell (Scrophulariaceae)

Nepali — Kutki.

Decoction or the powder of rhizomes is used in heart complaints, piles, malarial fever, body ache, urinary complaints, as tonic in anemia and in constipation.

A decoction of rhizomes, 10-20 gm for one dose, is taken orally 2-3 times daily. The powder is prepared from rhizomes in 1-2 gm as one dose and is taken orally 2-3 times daily for the same purpose. Powder form is more effective than the decoction. Infusion of the leaves (10-15 gm per dose) is used twice or thrice daily for the treatment of cold, cough and fever.

Rheum nobile Hook. f. & Thoms.

(Polygonaceae)

Nepali — Keju; Bhutia — Tsuka.

The powder, decoction, or the infusion of roots and rhizomes are used in rheumatic arthritis, heart complaints and as tonic after delivery. Powder in the amount of 3-5 gm at one time is taken orally twice or thrice daily and is more

effective than decoction or infusion. The infusion of 10-20 gm for one time can also be taken 2-3 times daily with water and after adding flavour for the same purpose. The decoction of fresh roots (50 gm for one dose) may also be taken orally two to three times daily for the treatment of the above said diseases.

The rhizome is used to obtain yellow dye^{2,4}.

Rubia manjith Roxb. ex Fleming

(Rubiaceae)

Nepali — Majito; Bhutia — Chicham.

A decoction of roots (10-20 gm as one dose) is used 2-3 times daily in case of jaundice, urinary track infection, liver complaints and as general tonic. Powder of roots (after removing bark) is prepared and this powder is taken 1-2 gm as one dose 2-3 times daily for the same purpose and is continued till remedy.

The decoction of root is used by Lodhas for the treatment of irregular menstruation and also for the treatment of eye and ear diseases⁶. As a traditional medicine it is considered as great blood purifier. It is also used for the treatment of joint pains, leucoderma and in skin diseases⁷.

Rubus ellipticus Smith (Rosaceae)

Nepali — Aiselu.

Root paste is used as poultice for the treatment of bone fracture. Ripe fruits are laxative and are used in case of constipation. Paste of young fruits, 10-20 gm at a time, is taken twice or thrice in a day in case of gastritis, as antacid and to check diarrhoea and dysentery. This dose is continued till remedy or relief.

Stephania glabra Roxb.

(Menispermaceae)

Nepali — Gurjagano; Lepcha — Burkil-kunthek-rik.

Decoction of tuberous root is used in the treatment of diabetes, fever, gastric problem, amoebic dysentery, as anthelmintic, in rheumatic body ache, blood dysentery, leprosy and even as anticancer drug. A decoction of 10-20 gm of tuber for one dose is taken orally twice daily till remedy of the diseases. Powder form of tubers (500 mg to 1 gm) is taken once a day for the same treatment. A dose of more than 2 gm causes narcotic effect. Oil extracted from tubers is used externally in the treatment of leucoderma, leprosy and in other skin complaints.

Stem bark of this species is used for extraction of fibre⁴.

Thysanolaena maxima (Roxb.) O.

Kuntze (Poaceae)

Nepali — Kutcho; Lepcha — Pushore.

A decoction of 200-300 gm of young roots for one dose is used twice a day in case of bronchial problem. Poultice of young flowers is used in rheumatic pain and skin swelling.

The roots are used in flatulence and leaves are traditionally used in performing religious ceremony⁴. Lodhas prescribe a paste of the flowers along with country liquor and honey as contraceptive to women. Decoction of roots is used along with common salt for the remedy of mouth sore⁶.

Discussion

Uses of rhizomes, roots and tubers of 15 plants are presented here. It is

observed that the plants are overexploited for preparation of the drugs. The young plants are uprooted for collection of the rhizomes, roots and even bulbs. Thus, the population in wild condition is under threat. A rational utilization of plant wealth should be considered and over exploitation should be checked. It is necessary to prevent the collection of plants from the natural habitat and a strategy can be planned to conserve these plants in their natural habitat preventing human interference. Wherever possible, cultivation of these plants should be taken up.

On the other hand it is observed that the life style pattern of the communities is changing due to modern system of medical treatment. Thus it is necessary to record this information as early as possible for future investigations about the proper uses of these plants.

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