ANNALS OF PHARMACY AND PHARMACEUTICAL SCIENCES
Volume 3 | Issue 2 | October, 2012 | 55-58
RESEARCH ARTICLE

Traditional medicinal plants of Zanskar (Ladakh)

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ABSTRACT

Herbal medicine was long practised by indigenous peoples all over the world. The knowledge of the medicinal properties of many of the plants was usually as a result of trial and error. Medicinal plants are used differentially for specified purpose plant parts such as root, stem, flowers, and seed contain different photochemical in different quantity. The medicinal plants should be studied according to photochemical and be conserved for the use of future generations. The present communication deals with the study of the medicinal plants and the richness of the traditional system (Amchis) of medicine in of Zanskar (Ladakh).Besides listing 31 plant species of medicinal value, the philosophy behind this system of medicine and the causative factors are also briefly mentioned.

Key words : Medicinal plants, Zanskar

How to cite this paper : Kumar, Shayat (2012). Traditional medicinal plants of Zanskar (Ladakh), *Ann. Pharm. & Pharm. Sci.,* **3** (2) : 55-58.

Article chronicle : Received : *15.09.2012;* **Revised :** *28.09.2012;* **Accepted :** *08.10.2012*

INTRODUCTION

Medicinal herbs were long practised by indigenous peoples all over the world. Siddha system of medicine is the oldest in the world. It stresses the wisdom and importance prevention of disease. Alternative system of medicines are of two categories, traditional and recent. Ayuraveda, Unani, Siddha are the traditional systems of medicine. The use of medicinal plants as traditional medicines is well known in rural areas of many developing countries (Gupta *et al.,* 2005). Nature has provided a rich storehouse of herbal remedies to cure all mankind's ailments. The knowledge of the of the medicinal properties of many of the plants was usually as a result of trial and error. Medicinal plants are used differently for specific purpose plant parts such as root, stem, leaf, flower and seed containing different phytochemicals in different quantity.

Zanskar, lying in the Southwest of Leh, is cordoned by Kishtwar and Purig in the West and Northwest, Lahoul in the South, Upshi in the East and the rest of Ladakh in the North (Fig. A). People over the passage of time have discovered the medicinal properties of plants growing around them and have fully exploited this knowledge. In this region people who practise medicine, a system akin to the one prevalent in Tibet, are called 'Amchis'. Amchis prepare medicine with the help of local flora and fauna, to which some locally available minerals are also added. Despite the fact that modernization is making inroads into this region and the traditional system of curing is getting replaced by allopathic medicine at very fast rate, the Amchis, now very few in number, still command a great respect from the local people and are in great demand

In the Tibetan system of medicine, which is also the basis of that practised by Amchis, the art of treatment is called "grow-wa-rig-pa" (knowledge of healing).

This system is based on the original teachings of Buddha still preserved in rgyud-bzhi(four-tantras).According to this system a disease is the result of dynamic disequilibrium of various psychological (delusion, ignorance confusion, leading to attachment, greed, desire, hatred, aversion and aggression) and cosmophysical (earth, water, fire air and space) energies, besides improper dietary, behavioural and environmental factors.

To start with, Amchis prescribe very simple treatment which includes proper diet and proper mental, emotional and physical behaviour. Subsequently natural drugs (mostly of plant origin), starting from less potent to highly potent ones, are prescribed. A word of caution here is important, that, none of these plants is used alone as such and each prescription

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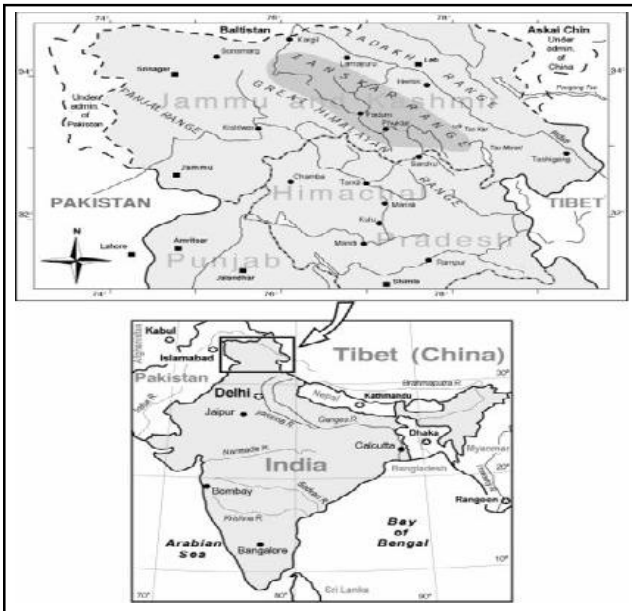

Fig. A : Map showing the position of Zanskar (Ladakh)

comprises of a mixture of products of a number of plants. In some areas surgery is also taken as a last resort. The present study has been carried out to give an account on the enumeration of medicinal plants used in the Tibetian system of medicine which is also the basis of the practised by Amachis in Zanskar (Ladakh). Besides listing medicinal plants, the philosophy behind the Tibetian system of medicines and method of use are discussed.

MATERIALS AND METHODS

The present information on medicinal plants of Zanskar was gathered during the course of several surveys undertaken in this region. Frequent visits in the study area have been carried out starting from April to June. Plants of medicinal importance were collected from Zanskar with the help of village elders and Amchis and were interviewed to document their knowledge of occurrence and uses of various medicinal plants. Medicinal properties of these plants were confirmed not only from actively practising medicine men of this region but also from direct observations and these were properly identified with the help of various floras. Commonly used plants were collected and identified. Plants press was used for keeping plants for observation. Pocket lens, knife, camera, a field book were used. The plants material identified having potential medicinal importance were studied with reference to their local name, botanical name, family, the vegetative part and reproductive part used medicinally and diseases treated using these plants. The plants were identified with the help of various flora.

RESULTS AND DISCUSSION

The plants specimens were identified by using various flora (Kachroo *et al.*,2002; Ballah and Chaurasia,2009; Kapahi,1993; Kimes and Bernhard,2005 and Singh and Gohil, 1992; Shah,1982; Rizivi, 1983; Lev, 2006). The morphological characters and medicinal importance of the observed plants from study area are as follows:

List of plants used as medicines in Zanskar

– Botanical name : *Anaphalis nepalensis* Hand.
Common name : Yamoo
Collection site : Padum (3500m)
Family : Asteraceae
Useful parts : Crushed leaves are taken with hot water.
Disease treated : To relieve rheumatic pains

– Botanical name : *Carum carvi* L.
Collection site : Skagam (3520 m)
Common name : Konyot
Family : Apiaceae
Useful parts : Powdered foliage is administered with hot water.
Disease treated : Cough, Cold and Fever

– Botanical name : *Cicer songaricum*, Steph
Common name : Seri
Collection site : Padum (3500 m)
Family : Papilionaceae
Useful parts : Powdered seeds and flowers are taken with water
Disease treated : To improve potency

– Botanical name : *Cuscuta capitata*, Roxb
Common name : Datasanzin
Collection site : Tungr(3500m)
Family : Cuscutaceae
Useful parts : Application of poultice prepared with its leaves.
Disease treated : To enhance healing of cuts and wounds

– Botanical name : *Euphrasia officinalis*, Linn.
Common name :
Collection site : Padum (3500m)
Family : Scrophulariaceae
Useful parts : Boiled water extract of foliage
Disease treated : To remove giddiness

– Botanical name : *Epilobium angustifolium*, Linn.
Common name : Chaugchumintuk
Collection site : Penzila (4250m)
Family : Onagraceae
Useful parts : Crushed leaves and flowers are swallowed with hot water
Disease treated : To cure renal ailments

– Botanical name : *Galium pauciflorum*, Bunge.
Common name : Shachi
Collection site : Tungri(3525m)
Family : Rubiaceae
Useful parts : A massage of the powdered seed and oil.
Disease treated : To relieve rheumatic pains

– Botanical name : *Gentiana carinata* Griseb
Common name :
Collection site : Tungri(3550m)
Family : Gentianaceae
Useful parts : Infusion of leaves and flowers.
Disease treated : Cough, Cold and Fever

– Botanical name : *Hyoscyamus niger*, Linn.
Common name : Gay Luntung
Collection site : Pibitin(3550m)
Family : Solanaceae
Useful parts : Smoke of burning seeds is collected inside the mouth
Disease treated : To kill and remove worms from the teeth

– Botanical name : *Inula obtusifolia*, Kerner.
Common name : Zarmanmin-Zansarpoh
Collection site : Tungri(3500m)
Family : Asteraceae
Useful parts : Crushed leaves are taken with hot water
Disease treated : To relieve rheumatic pains

– Botanical name : *Inula rhizocephala*, Schrank.
Common name : Pashaka
Collection site : Penzila(4100m)
Family : Asteraceae
Useful parts : Leaf juice taken with hot water.
Disease treated : For purifying blood

– Botanical name : *Lactuca tatarica*, C.A.Mey
Common name : Shap
Collection site : Tungri(3500m)
Family : Asteraceae
Useful parts : Powdered flowers are swallowed with hot water
Disease treated : To normalize blood pressure

– Botanical name : *Lepidium aucheri* Boiss
Common name : Shansho
Collection site : Tungri(3550m)
Family : Brassicaceae
Useful parts : Powdered foliage is administered with hot water or milk
Disease treated : Cough, Cold and Fever

– Botanical name : *Medicago lupulina*, Linn.
Common name : Buksuhang
Collection site : Skagam(3500m)
Family : Papilionaceae
Useful parts : A decoction of leaves is given with hot water.
Disease treated : Cough, Cold and Fever

– Botanical name : *Oxyria digyna*, Hill
Common name : Chumsa
Collection site : Padum(3500m)
Family : Polygonaceae
Useful parts : Powdered seeds and flowers are taken with water
Disease treated : To cure stomach troubles

– Botanical name : *Pedicularis bicornuta*, Klotz.
Common name : Dugrumintak
Collection site : Penzila (4200m)
Family : Scrophulariaceae
Useful parts : Application of leaf poultice.
Disease treated : To cure boils

– Botanical name : *Pedicularis punctata*, Dcne
Common name : Dugroomintuk
Collection site : Skagam(3520m)
Family : Scrophulariaceae
Useful parts : Powdered foliage is swallowed with water
Disease treated : To cure stomach troubles

– Botanical name : *Physochlaina praealta*, Hk. f.
Common name : Lungtung
Collection site : Pibiting(3500m)
Family : Solanaceae
Useful parts : A massage of the powdered seed and oil.
Disease treated : To relieve rheumatic pains

– Botanical name : *Pleurospermum candollij*, Benth.
Common name : Shuka
Collection site : Penzila(4200m)
Family : Apiaceae
Useful parts : A decoction of foliage is taken with water.
Disease treated : Cough, Cold and Fever

– Botanical name : *Polygonum affine*,Stephi.
Common name : Gaypomintuk
Collection site : Penzila(4200m)
Family : Polygonaceae
Useful parts : An infusion of leaves.
Disease treated : Cough, Cold and Fever

– Botanical name : *Ranunculus pulchellus*, C.A.Mey.
Common name : Chitaka
Collection site : Tungri(3500m)
Family : Ranunculaceae
Useful parts : Application of leaf poultice.
Disease treated : To cure boils

– Botanical name : *Rosa webbiana*, Wall
Common name : Sivamintuk
Collection site : Tungri(3520m)
Family : Rosaceae
Disease treated : To induce sleep
– Botanical name : *Rumex orientalis*, Bernh.
Common name : Shoma
Collection site : Tungri(3520m)
Family : Polygonaceae
Useful parts : Application of poultice prepared with the leaves
Disease treated : To enhance healing of cuts and wounds
– Botanical name : *Tanacetum artemisioides* Schultz
Common name : Atungkerpoh
Collection site : Padum(3550m)
Family : Crushed leaves and flowers are given with water.
Disease treated : Cough, Cold and Fever
– Botanical name : *Thlaspi kotschyanum* Boiss and Hohen
Common name : Traka
Collection site : Tungri(3550m)
Family : Brassicaceae
Useful parts : Leaf juice taken with hot water.
Disease treated : To improve digestion
– Botanical name : *Thymus serpyllum* L
Common name : Mashay
Collection site : Penzila(4200m)
Family : Lamiaceae
Useful parts : Boiled infusion of the foliage.
Disease treated : Cough, Cold and Fever
– Botanical name : *Verbascum thapsus*, Linn.
Common name : -
Collection site : Tungri (3560m)
Family : Scrophulariaceae
Useful parts : Powdered leaves swallowed with water.
Disease treated : To induce vomitting in case of food poisoning
– Botanical name : *Viola odorate* L.
Common name : -
Collection site : Penzila(4200m)
Family : Violaceae
Useful parts : Crushed leaves are taken with water
Disease treated : Cough, Cold and Fever

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