HERBAL REMEDIES USED AGAINST SOME COMMON AILMENTS IN INFANTS IN KISHTWAR HIGH ALTITUDE NATIONAL PARK (JAMMU AND KASHMIR) INDIA.

Satish Kumar, Jyoti Parihar and Irshad Ahmed Hamal

Department of Botany University of Jammu, Jammu, Jammu and Kashmir, India.
Satish.bot@gmail.com

Abstract: Traditional herbal medicine plays a large role in Indian society. All though the role of medicinal herbs as a source of traditional medicine have decreased due to the introduction of allopathic drugs but still their importance as a prime source of rural healthcare is unparalleled. Kishtwar High Altitude National Park (KHANP) is situated in the North of Kishtwar town in newly created district Kishtwar carved out of the erstwhile district Doda of Jammu and Kashmir State. The area of the National Park includes 35 villages with about 20000 human population. Since the area is unelectrified, lacks motorable road connectivity and modern healthcare facilities, the local populace is largely dependent on traditional resources for day to day needs. The paper presents information on the traditional uses of twenty plant species in the treatment of some common ailments in infants by local inhabitants of Kishtwar High Altitude National Park, Jammu and Kashmir.

Key words: Herbal, Ailments, Diseases, Inhabitants, Infants.

INTRODUCTION

The use of plants for the existence of human being is as old a practice as the human race itself. The accumulation of knowledge of plant use however coevolved with human civilization through the experimental use of plants, generation after generation. The potential saleable and ethnic use of plants in medicine through folklore as well in the documented form of Rig Veda and Ayur Veda dates back to 3000-1000 BC and was in all probability the only means of curing/or protecting the evolving human population from the diseases (Wani *et al*., 2006). The primitive people of all ages had knowledge of medicinal plants, which they acquire as a result of trail and error. This knowledge is still alive and several hundred species are used in herbal remedies in indigenous system of medicines, where the whole plant or plant part or its extraction is used. Medicinal plants are widely used in household remedies and by practitioners of traditional systems of medicines, particularly in the developing world where public health care services are limited. According to the WHO estimate, about 80% of the population in the developing countries depends directly on plants for its medicines (Pareek, 1996; Mukhopadhyay, 1998). At the same time, interest in traditional and contemporary and alternative medicine in industrialized countries has grown rapidly. In India, about 2000 drugs used are of plant origin (Dikshit, 1999).

For a number of reasons bio-diversity and associated indigenous knowledge are declining at a rapid rate (Arora, 1995). With population explosion, urbanization, adverse effects of modern drugs, it has been realized that ethno-botanical studies of different parts of the world particularly of the areas which inhabit primitive societies or which are still inaccessible and remote where local populace largely depends on plant diversity, should be under taken on priority. The main aim is to explore the possibility of laying hands on such plant species that have potential for new drugs.

More interaction between locals and plants has been found in rural areas which are either remote, inaccessible having primitive customs (Amira, and Okubadejo, 2007; Kitula, 2007; Teklehaymanot and Giday, 2007). Kishtwar High Altitude National Park (KHANP) is situated in the North of Kishtwar town in newly created district Kishtwar carved out of the erstwhile district Doda of Jammu and Kashmir State. Spread over an area of 425 Km^2 Kishtwar High Altitude National Park lies between latitude 33° 20′ to 34º 40′ N and longitude 75º 40′ to 76 º 10′ E. A sizable area of the National Park is inhabited by the indigenous human population and the nomadic Gujjar and Bakerwals. The area of the National Park includes 35 villages with about 20000 population. One of the main reasons for their continued dependence on natural resources is the lack of the motorable roads, electricity, and tough terrain. The people of Kishtwar High Altitude National Park, like most other indigenous people of Himalayas depend upon plant resources for their medicinal requirements and in this way a traditional system of folk recipes has evolved in the area over a period of time. The present study carried in KHANP was aimed to record and document the indigenous knowledge on medicinal plants used to cure some common ailments in infants.

MATERIAL AND METHODS

Almost all the densely populated villages were visited and attempt was made to gather the information from medicine men/women or knowledgeable persons of the area. In every case, efforts were made to record only those use whose effectiveness has been confidently claimed by the local people. The information was gathered either by taking interview of the informant or as witness of the uses. Informants were also requested to accompany in the field to detect plants. Once the information on particular plant was recorded it was repeatedly verified from other sources. Plant identification was done from various local, regional and national floras (Hooker, 1872-1897; Anonymous, 2002; Singh and Kachroo, 1994). The specimens were deposited in the Herbarium of Department of Botany, University of Jammu, Jammu.

RESULT AND DISCUSSION

The study carried out in Kishtwar high altitude national park enabled us to identify 20 medicinal plants which are used by the local inhabitants in curing some common ailments and diseases in infants. Majority of these medicinal plants were herbs (15 Species) followed by trees (3 Species) where as only one was shrub. Among the species used for curing ailments in the infants 16 species were dicots, one monocot and two pteridophytes. Interviews with elderly and knowledgeable persons reveal that most of the plants are collected during the flowering stage. The plant parts used for medicinal preparations by the indigenous people are leaf, root, bark, flower, fruit, rhizome, tuber, seed, shoot, resin, wood, etc. In some cases the whole plant was utilized. The herbal preparations are used in treatment of respiratory tract infections (cold, cough, fever,) gastro-intestinal problems (cholera, gastritis, intestinal pain, stomachache, etc.), dermatological problems. The preparation methods included decoction, juice, oil, paste, powder, extract, smoke, and even raw (unprocessed).

***Adiantum capillus-veneris* L.**

Family: Adiantaceae, Common names: Southern maidenhair, Venus maidenhair, Venus' hair fern, Local Name: Geutheer, Life form: Herb, Part used: Fronds

The dried powdered fronds are mixed with milk and given as a remedy for fever to infants.

***Ajuga bracteosa* Wall. ex Benth.**

Family: Lamiaceae, Local name: Gutti, Life form: Herb, Flowering: June-September, Part used: Leaves, Roots

Dried leaves and roots of this herb mixed in mustard oil are applied on the scalp to enhance the hair growth.

***Artemisia maritima* L.**

Family: Asteraceae, Common Name: Sea wormwood, Local name: Moin, Life form: Herb, Flowering: July-September, Part used: Aerial parts.

The aerial parts of the plant are given with gur (raw sugar) to get rid of the intestinal worms in infants. Also given in severe Stomach pain.

***Asplenium dalhousiae* Hook.**

Family: Aspleniaceae, Local name: Sun ashud, Life form: Herb, Part used: Leaves.

Powdered dried leaves of this fern are given with milk to the infants in high fever, soar throat, cough and cold.

***Betula utilis* D. Don.**

Family: Betulaceae, Common Name: Himalayan birch, Himalayan silver birch, Indian paper birch, Local name: Bhurzaj, Life form: Tree, Flowering: April-May, Part used: Bark.

The peelings of bark are burnt and the smoke is collected on an inverted plate kept over the flame, which is later applied on eyelashes for cleaning eyes and remedy for other eye infections.

***Caltha palustris* L.**

Family: Ranunculaceae, Common Name: Cowflock, cowslip, kingcup, marsh-marigold, meadow-bright, Local name: Bidgove, Life form: Herb, Flowering: May-July, Part used: Aerial parts.

Fresh aerial parts of the herb are given orally to infants suffering from acute constipation.

***Cannabis sativa* L.**

Family: Cannabaceae, Local name: Bhang, Life form: Herb, Flowering: June-September, Part used: Leaves.

The leaves of the plant are crushed and the juice is applied on the insect bite, it reduces the swelling and relieves the pain.

***Capsella bursa-pastoris* (L.) Medik.**

Family: Brassicaceae, Common Name: Shepherd's-purse, Local name: Kathkram, Life form: Herb, Flowering: April-October, Part used: Leaves

Crushed leaves of this herb are given to infants in dysentery.

***Cydonia oblonga* Mill.**

Family: Rosaceae, Common Name: Quince, Life form: Tree, Flowering: June-July, Local name: Bhi, Part used: Fruit, seeds.

Crushed seeds mixed in milk are given to infants as a remedy for sore throat.

***Cynodon dactylon* (L.) Pers.**

Family: Poaceae, Common Name: Bermuda grass, Local name: Dhrub, Life form: Herb, Flowering: May-November, Part used: Aerial parts.

The extract of the plant is used against nasal bleeding.

***Fragaria nubicola* (Hook. f.) Lindl. ex Lacaita**

Family: Rosaceae, Local name: Ingdach, Life form: Herb, Flowering: April-June, Part used: Leaves.

The leaves of the plant are given orally to infants in high fever.

***Jurinea dolomiaea* Boiss.**

Family: Asteraceae, Local name: Dhupa, Life form: Herb, Flowering: August-October, Part used: Roots.

Root ash is rubbed against skin as remedy for irritation and skin rashes.

***Oxalis corniculata* L.**

Family: Oxalidaceae, Common Name: creeping lady's-sorrel, creeping oxalis, creeping wood-sorrel, Local name: Dang chuch, Life form: Herb, Flowering: April-July, Part used: Leaves, flowers.

The fresh leaves are crushed and given orally in cases of stomach troubles like stomach pain, dysentery and other intestinal infections.

***Plantago lanceolata* L.**

Family: Plantaginaceae, Common Name: Local name: Life form: Herb, Flowering: May-June, Part used: Seeds

Seeds of this herb are used against constipation.

***Prunella vulgaris* L.**

Family: Lamiaceae, Common Name: heal-all, self-heal, Local name: Kalvouth, Life form: Herb, Flowering: June-September, Part used: Seeds

The plant is used for fever and cough.

***Prunus armeniaca* L.**

Family: Rosaceae, Common Name: Apricot, Siberian apricot, Local name: Chair, Life form: Tree, Flowering: March-April, Part used: Kernel oil

The oil obtained from the kernels of this tree is massaged on the body of infants.

***Rosa webbiana* Wall.**

Family: Rosaceae, Common Name: Apricot, Siberian apricot, Local name: Chair, Life form: Tree, Flowering: March-April, Part used: Kernel oil

Family: Rosaceae, Life form: Shrub, Flowering: Jun-Aug, Local name: Jangli gulab, Part used: Flowers.

Local villagers make sharbat from the petals of flowers, it has cooling effect.

***Solanum nigrum* L.**

Family: Solanaceae, Common Name: black nightshade, common nightshade Local name: Life form: Herb, Flowering: July-August, Part used: Whole Plant

Juice of whole plant used against sore throat.

***Viola indica* W. Becker**

Family: Violaceae, Local name: Sontar posh, Life form: Herb, Flowering: April-August, Part used: Flowers.

Dried flowers mixed with milk and are given to infants for curing cough and chest infections.

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REFERENCES

Amira, O.C. and Okubadejo, N.U. (2007). Frequency of complementary and alternative medicine utilization in hypertensive patients attending an urban tertiary care centre in Nigeria. *BMC Complementary and Alternative Medicine*, **7**:30.

Anonymous. (2002). Flora of Jammu and Kashmir. Botanical Survey of India, Culcutta.

Arora, R.K. (1995). Ethnobotanical studies on plant genetic resources- National efforts and concern, *Ethnobotany*, **7**: 125-136.

Dikshit, V.K. (1999). Export of medicinal plants from India: need for resource management. In *Biodiversity– North-east India Perspectives: People's Participation in Biodiversity Conservation* (eds Kharbuli, B., Syem, D. and Kayang, H.), NEBRC, North-Eastern Hill University, Shillong, pp. 85–88.

Hooker, J.D. (1872-1897). Flora of British India. Vol. I-VII. London.

Kitula, R.A. (2007). Use of medicinal plants for human health in Udzungwa Mountains Forests: a case study of New Dabaga Ulongambi Forest Reserve, Tanzania. *Journal of Ethnobiology and Ethnomedicine*, **3**: 7.

Mukhopadhyay, S. (1998). Conservation, protection and biodiversity of medicinal plants. In *Prospects of Medicinal Plants* (eds Gautam, P. L. *et al.*), Indian Society for Plant Genetic Resources, New Delhi, pp. 15–28.

Pareek, S.K. (1996). Medicinal plants in India: Present status and future prospects. In *Prospects of Medicinal Plants* (eds Gautam, P. L. *et al.*), Indian Society for Plant Genetic Resources, NBPGR Campus, New Delhi, pp. 5–14.

Singh, J.B. and Kachroo, P. (1994). Forest flora of Pir Panjal range (Northwest Himalaya), Bishen Singh and Mahendra Pal Singh Dehra Dun, India.

Teklehaymanot, T. and Giday, M. (2007). Ethno-botanical study of medicinal plants used by people in Zegie Peninsula, Northwestern Ethiopia. *J Ethnobiol Ethnomedicine*, **3**: 12.

Wani, P.A.; Dar, A.R.; Mohi-ud-din, G.G.; Ganaie, K.A.; Nawchoo, I.A. and Wafai, B.A. (2006). Treasure and Tragedy of the Kashmir Himalaya. *International Journal of Botany*, **2**(4): 402-408.