

**TYPICAL USES OF CERTAIN COMMON AND UNCOMMON PLANTS****\*N. P. Hota, \*\*M.M. Padhi**

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**ABSTRAT:** *The beginning of medicinal uses of plants dates back to the scribing period of Vedas in India. In ancient days, such uses came into vogue due to accidental experimentation or observation which subsequently gave rise to practice either by a qualified physician or by an astrologer or by lay men, called nostrum or folk-lore. All these have their own distinct manner of use though they are very often intermingled. Apart from classical uses as mentioned in Ayurvedic, Unani or Sidha therapeutic treatises, material medica, texts on / pharmacy etc.; the new dimension of collecting additional information started in early part of 20<sup>th</sup> century where on several botanists contributed a lot for exploration of the same.*

*Since Orissa is a treasure of folk-core claims and besides qualified practitioners, certain lay men especially in rural area and tribal area, saints and priests at different places also possess knowledge on certain typical uses of several plants, there is a larger scope to highlight the same for future study from difference angles. In this paper an attempt has been made to highlight certain newer information's on certain common and uncommon plants like *Lygodium flexuosum*, *Vitex peduncularis*, *Barleria lupulina*, *Leptadenia reticulate*, *Selaginella indica*, etc., collected from different parts of Orissa.*

**INTRODUCTION**

The treatment of disease when evolved in a systematic manner was primarily based on materials from plant resources. That is why the treatises written during Classical age (1000 B.C to 7<sup>th</sup> Century A.D) grossly describe uses of different plants along with few minerals and biological products. There are descriptions regarding inheritance of Ayurveda from divine personalities to earthly sages and the citations are initially believed to be narrated by the creator God. So most of the descriptions in Charak, Sushruta and Vagbhat having original concept are likely to come from such a stream. According to their opinion, all the matter in this universe is made of five subtle elements like space, air, fire, water and earth. Since human body is also composed of the same, the diet or medicinal drug when ingested, act upon or nourish

cognate body elements. So, a tree or a mineral or any animal product, can be utilized as medicine.

Charak Samhita is considered as oldest among the available Ayurvedic treatises in which mostly the plants have been described with medicinal utility. Next to him, Sushruta and Vagbhata enumerated 54 plants which are not mentioned in Charak (1). That means the inclusion of new plants was an evolutionary process. But in spite of acumen and apperception of these sages, they advised to collect information on medicinal plants from Cowherds, Shepherds, Herfmits and those who wander or reside in the forests (2). This trend seems to be continued till 20<sup>th</sup> century as the number of drugs used as medicines increased gradually. The compendiums on

material medica enumerated several indigenous and also exotic plants which came in to vogue in practice.

In early of 20<sup>th</sup> century, a new trend emerged, as several botanists started surveying and identifying medical plants incorporating reported classical medical values as well as on the basis of use in tribal and rural areas. Now this trend has taken a new dimension and the services of any Ayurvedic or traditional practitioners in most cases are ignored. On the other hand, scribing treatises in Ayurveda bearing classical value ceased to operate. Though the present system of survey, identification, cultivation, collection and obtaining data on medical uses of the plants have explored thousands of claims throughout India, how many of them have come out as patent? Very negligible, rather ni. This is because a larger portion using typical remedies with successful effect uncovered and data is collected simply by asking laymen of the area with whom contract could be made or who accompanied the survey team. Many claims reported are merely repetition of therapeutic uses mentioned in Ayurvedic Texts. Some traditional bone – setters, practitioners, snake charmers, tribal practitioners, monks in the temples, rawdrug vendors, and even lay men possess such knowledge which can be skillfully collected by collaborative approach of Ayurvedists along with Botanists.

In this paper typical uses of certain medicinal plants not mentioned in Ayurvedic classics have been highlighted which have been collected from authenticated sources in rural and tribal area and have been verified to a larger extent.

### **1. *Barleria lupulina* (Acanthaceae)**

A spinescent shrub, 2-5 ft. high, 2 pairs of down-turned thorns at each node, leaves

opposite entire, 4-5” long, linear-lanceolate, green with pink or red mid-ribs, mucronate at apex. Flowers peach-yellow in dense, strobiliform spikes. Sepals 4, in decussate pairs, Corolla with elongated tube, funnel-shaped upwards, lobes 5. Seeds compressed, ovate with silky appressed hairs. This thorny shrub not reported in many prevalent texts on medicinal plants is available in Nayagarh locality called *Vana Vishalyakarane* (Wild Variety if *Vishalyakarane*) and planted by some persons in the fancy boundary of domestic surroundings. New plants arise near the plant by fallen seeds. This has been referred rarely as decorative plant (3).

Habitant – West Bengal, Orissa – Nayagarh, (Origin – Mauritius).

### **MEDICINAL USES**

1. The colloquial term indicates its action *Vishalyakarane* or having action on wounds, injury and infections. The root is boiled as decoction and is given 4 tsp twice daily after food during post-partum period to stop bleeding and to prevent infection.
2. The mustard oil or gingely oil boiled with its root or leaves is applied in skin infection and eczema.
3. The leaves are squeezed and the fresh juice is applied on acne vulgaris once daily for 1 to 4 days. Within next few days they disappear, but black spots are left which may pose a cosmetic problem for persons of fair complexion. But they last for few days and in order to bring back normal skin colour, the paste of sandalwood and turmeric is applied for next 4 – 8 days.

### **2. *Leptadenia reticulata* (Asclepiadaceae)**

Climber with corky bark and thick but not milky juice, young parts hoary-tomentose,

branchlets often glaucous. Leaves ovate oblong or lanceolate, 2.5 – 8 x 1.8-3.7 cm. Petiole slender, 1.5 – 3 cm long. Follicles green, 6-8.7 x 1.8 – 2.5 cm. Seeds, linear-obvoid, 5 mm long with involute margins.

This evergreen climber described as *Jeevantee* has been reported for uses as a lactagogue and anti-pyretic in Ayurvedic texts and is available in wastelands of Nuapada Island, Chilika, Puri, Bhubaneswar and Ganjam localities of Orissa. In certain coastal pockets it is called as “*Menddee Shaaka*” (Greens of the Sheep). Some people use its leaves as one of the greens which tastes sweet. This corroborates with “*Jeevantee Shakaanaam*” version of Charaka, which places this as best among the greens. Other habitat of this plant are Nepal and Punjab, southwards to Srilanka and eastward to Myanmar, Comoro Island, Madagascar and Mauritius (4).

### MEDICINAL USES

1. The leaves of about 250 gms is fried with gingely or mustard oil and to it a little amount of salt is added. This is taken daily for 15-20 days for relief of joint pain, Rheumatoid arthritis, lumbago and arthritis of Knee joint (*Kostruksheersha*).
2. For a better effect in these diseases, the stem and root are preferred to leaves for decoction by boiling with 8 times of water and reducing up to one fourth. One glass (about 250 ml.) of such decoction is taken daily for 15-90 days which is likely to provide radical cure in majority cases.

### 3. *Lygodium flexuosum* (*Lygodiaceae*)

Oriya-Kalmahajal, Kandh-Mahajal, Bengali-Bhuturaj.

This is an uncommon fern mostly grown near trees in wasteland and forests during rainy

season and nearby certain water logging areas it may be perennial. It is distributed in many parts of India, Srilanka, China etc. In Orissa it has been reported around Bhubaneswar, Keonjhar and Gandhamardhan (5). Primary Pinnae abbreviated to a small knob with hairy apex and bearing a pair of 1-2 pinnate divaricate. Secondary Pinnae on well grown fronds, 15 – 45 cm long, sterile up to 15-17.5x1.8 – 2.5 cm., serrulate with many parallel forked veins, fertile pinnules rather narrower, pectinately lobed with sporangial spikes which are 3.7 – 6.2 mm long.

### Medicinal Uses:

1. In dry eczema, the paste of leaves or root is boiled with mustard oil and is applied locally twice daily for 7 – 20 days. Some make paste of its leaves with powder of Haridraa (*Curcuma longa*) and cow's urine and apply locally for 4 days.
2. In oozing eczema the paste of leaves with coconut oil is applied once daily for 7 days. In majority of the cases the eczematous patch goes on decaying gradually and vanishes within next few days.

The efficacy of the paste of its leaves and mustard oil boiled with its root has been established in a Preliminary observation and Clinical study (6,7).

### 3. *Selaginella indica* (*Selaginellaceae*)

Plants xerophytic, stems 10-30 cm creeping, strongly dorsiventral in position, branched from the base, branches bi-to tripinnate; rhizophores wiry, long, almost through out the plant. Leaves more or less isomorphic, imbricate around the stem, erect, or ascending, 2.5 – 5mm long. Strobili scarcely differentiated, sessile, 5-25 x 1 - 1.5 mm, megaspores 350-375 um, pale orange, rugose; microspores 40- 45 um, deep yellow, rugose to reticulate.

It is available in hilly area especially at damp place. In Orissa it has been reported at Kalapathar, Sonabera etc. (8). At several places the street vendors sell it is “*Sanjeevane*” and speak of its utility in leucorrhoea, burning sensation etc.

#### **Medicinal Uses:**

1. In certain tribal pockets of Kenjhar district, the fresh juice of its leaves are administered internally in the doses of 5 tsf thrice or four times daily according to severity in the cases of traumatic wound, chronic wound / ulcer, multiple abscess even leading to Septicaemia. Simultaneously the fine powder of its dried leaves is dusted on the wound.

#### **4. *Smilax zeylanica* (Smilacaceae)**

Hindi-*Jangali*, *Aushbah*, Beng.-*Kumarika*, Tel.-*Kondathamara*, Oriya – *Mutri*, *Ramadatuni*, *Rajdantni*, Koya, Saura-*Atakiri*.

Stout prickly climber, stem up to 2.5 cm diameter, branches terete or with 4 lines or more or less 4 angled, flowering branches mostly unarmed. Leaves ovate-oblong, elliptic, orbicular or ovate lanceolate, 9.3 x 7.3 cm., Obtuse or rounded with a short hard cusp. Flowers from April to July. Berry 7.5 – 12 mm diameter, 1-3 seeded, happen between October to January.

It is found commonly in forests especially in Koraput district. It is also distributed throughout India, Myanmar, Indo-China and Malaysia (9).

#### **Medicinal Uses:**

1. Powder of the roots is given 3 to 5 gms twice daily for 1 to 3 months. Alternately, the decoction is prepared by

boiling the root with 8 times water and reducing up to one fourth and taken twice daily which has been stated to be more effective.

#### **5. *Vitex pinnata* (Verbenaceae)**

Tam.-*Myladi*, Tel.-*Neval addugu*, Assam-*Ahoi*, Oriya-*Chaddei gudia*

A moderate sized evergreen tree up to 25 m. high, bark ash coloured or yellowish grey, fissured, flaking in thin pieces; branches quadrangular, leaflets 3-4 ovate, lanceolate or elliptic, 5-15 cm long; Flowers pinkish – blue changing to grey, drupes globose blank, 6-8 mm in diameter. It is also distributed in South India, Eastern India, Andamans, Bangladesh, Myanmar and Malaysia (10).

#### **Medicinal Uses:**

1. In chronic cases of nephritis, the leaves are used by traditional practitioners for decoction. For this purpose, earthen pot and wooden fire are preferred in which slightly crushed fresh leaves are boiled with 4 times of water with low heat till the water is reduced to one-fourth. Then it is filtered and taken afresh twice daily for 2 -3 months. In stead, the shade dried leaves cut in to pieces can be used by boiling on gas stoves, not kerosene stove.

A preliminary observation on few cases of nephritis has shown significant effect to stop passing of albumin, Puscelles, R.B.C. etc. in chronic cases of nephritis in even in the patients who were taking steroids. As such a systematic study has been initiated to establish its efficacy in quantifiable number of patients.

## 7. *Xyris indica* (Xyridaceae)

Oriya – *Tinna ghash*

This is a robust herb, 25 – 60 cm. high, leaves 1.2-3 x 0.3 – 0.8 cm, obtuse or acute. Scape terete, strongly ridged head, ovoid, globose, sub globose or elliptic, bracts closely imbricate, dark red-brown. Flowers yellow, 1.2 cm diam. New plants arise from fallen seeds. This plant is common in rice-fields, ditches and other marshy land especially in coastal belt like Bhubaneswar, Chilika, Khurda, Mendhasal, Puri, Bhardrak, Balasore in Orissa. Mostly the plants grow between Septmber-October, bearing flowers and fruits between October to November, dry with the paddy plants. But as some spots especially in ditches, plants remain up to February. It is also distributed in Bengal, Assam, Sikkim, Western Peninsula, Sri Lanka, Cochin, China, Malaysia and Australia (11)

### Medicinal uses:

1. The gum like substance at its root which oozes to superficial part above the root is squeezed and applied fresh in acute and chronic cases of ring worm once daily which exhibit action within 7 days rendering radical cure in many cases.
2. Since it is seasonal, alternately this part of the plant is boiled with mustard, gingely, coconut, *Neem* (*Melia azadirachta*) or

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*Karanja* (*Pongamia pinnata*) oil to use throughout the year.

### CONCLUSION AND SUGGESTION

The above uses are not merely the information based on asking lay men, but have been verified by ourselves or fellow physicians. So, study of these plants from different angles is suggested. Further it is suggested that ethno-botanical exploration should be conducted by botanists in the association with physicians having knowledge on use of plants and different formulations should be adhered to.

After collection of a claim it should be classified whether already mentioned in Ayurvedic texts or new one. More over instead of temporary tours a claim should be verified by asking multiple subjects who have used it and have been benefited. After collection, study should be made on different types of formulations mentioned in Ayurvedic texts as well as extracts by modern methods. Then the veracity of a claim can be known on preliminary study. Thus an integrated approach in this manner will provide a new dimension to ethnobotanical study for evolving patent / effective medicines. The collection of folklore claims should not be limited to tribal areas only, it should be extended to laymen, traditional practitioners, hermit practitioner of other area.

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