

# New Records to the Medical Efficacy Claims of Certain Plants Recorded from Gwalior Forest Circle, Madhya Pradesh —A Preliminary Contribution

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*The paper attributes to the medical efficacy claims of *Tridaxprocumbens* Linn ; *Elytraria acaulis* Lindau ; *Eriolaena hookeriana* W. & A ; *Orthosiphon pallidus* Royle ex. Benth. and *Rivea hypocrateriformis* Choisy. As far as authors are aware these are new to the medical science. The source, utility, useful parts, formulae and their mode of administration, scope of collection and supply along future line of action are given.*

## Introduction :

There are very few examples of plant folkclaims which get due scientific attention and notably

come out to be the discovery earning a popularity of international repute. For the instance, Sarpagandha (*Rauwolfia serpentina* Benth. ex Kurz., earlier known as 'Pagal ki buti' or other folk names being useful in psychiatric ailments) had a long heritage of flokuse as an anti-dote to snake and dog-bite in traditional medical belief of tribal communities of Bihar. Later the roots were put to various scientific trials and attracted chemical, pharmacoclinical researches since 1932 (Journ. Ind. Chem. Soc., 1931 and many references). In brief, it is proved to be a strong hypotensive agent isolating a number of medicinally potent active principles, in world medical field.

However, the various attempts to record folkclaims of plants from the field work in forests could

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not receive much attention for proper scientific evaluation, especially in India.

### Review of Previous Work :

A perusal of literature on medicinal plants indicates that hardly any reference is available for the medical efficacy claims of the plants reported in this communication (Refer : Chopra *et al*, 1956, 1958, 1969; Kirtikar and Basu 1933; Chuneekar 1969; Pandey *et al*, 1969; Singh and Chuneekar 1972). As regards the floristic studies in Madhya Pradesh, these have been made by various workers\* e.g., Kenoyer (1924), Mahe-shwari (1960-68), Tiwari (1966), Panigrahi *et al*, (1966-67), Wahe-edkhan (1971) and others; and the flora of few parts of the state is known.

However none seems to have paid close attention towards the qualitative value of rich forest reserves. The field informations that are provided alongwith the enumeration of the plants are scanty and incomplete in this regard. Further these botanical explorations do not undertake pains to bring the forest flora close to the practical utility of

human welfare and rather limits to only academic interest. Thus there is great and timely need to constructively correlate the results of extensive forest survey with medicinal utilization of botanical origin; and the preliminary efforts in this direction have already been initiated.\*\*

Therefore, the present attempt to record the medical efficacy of some miraculous plants, not known earlier, is a humble approach in this direction. Such informations are likely to inspire laboratorial experiments and clinical trials.

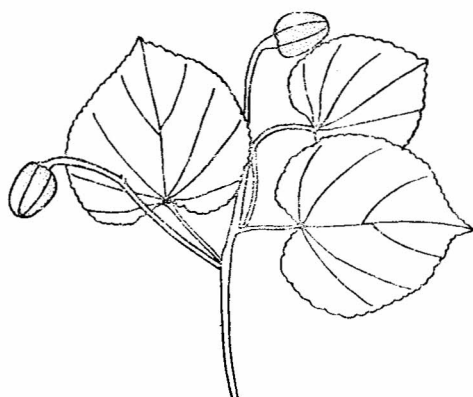
### Present Study :

The present study incorporates the detailed ethno-medical data on the selected plants of Gwalior Forest Circle, consisting Gwalior, Shivpuri, Guna and Sheopur Forest Divisions under the pilot project programme of "Survey, Socio-economic and Ethno-medical studies" of the area; it concentrates to bring into light the first hand medical folk claims of *Tridax procumbens* Linn.; *Elytraria acaulis* (Linn. f.) Lindau; *Eriolaena hookeriana* W. & A.; *Orthosiphon*

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\* Refer : Bhatnagar, Singh and Pandey 1973 and 1974 for detailed

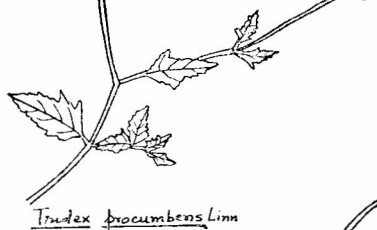
\*\* references.



Eriolaena hookeriana W. & A.



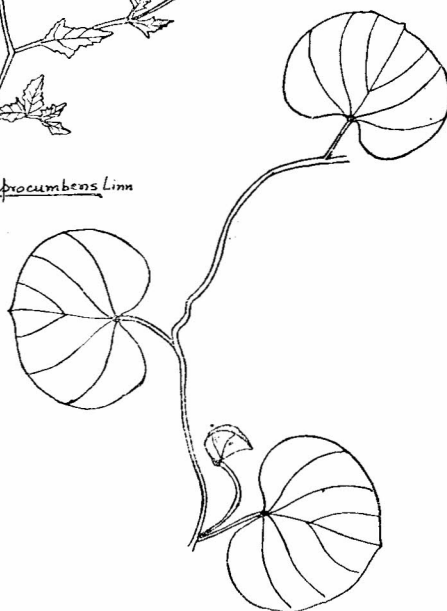
Orthocenthon pallidus Royle & B.



Tindax procumbens Linn.



Elythria acaulis (Linn. f.) Lindau



Rivea hypocrateriformis Choisy

Plate 1

*pallidus* Royle ex Benth and *Rivea hypocrateriformis* Choisy. These plants are botanically familiar (See Plate I), but their medical utility could not be traced out in the literature of medicinal plants.

### Methodology :

In view of materializing the applied ideology of reorienting the promissive relationship of forest vegetation and its medical evaluation, our explorations in the forests always also aim the collection of newer informations on plant efficacy which includes secret and most responsive remedies against many ailments including commoner medical emergencies. The medical efficacy claims provided herein are purely based on field informations which could be obtained after thorough and multi-angled interrogations and close associations with various tribal communities i.e., Shahariyas, rural practitioners, aged villagers, forest workers etc. inhabiting in the interior of forests, who are indeed very much reluctant to disclose any secret plant remedies. Such informations were systematically recorded time to time and verified through cross references in different localities during survey work.

*ELYTRARIA ACAULIS* (Linn. f.)  
Lindau. (Acanthaceae)

### Local names :

*Patharasaga, Gudapasari, Sasamula.*

### Description :

A scapigerous herb. Leaves radical, sessile, crenate, undulate, obtuse or subacute at apex, narrowed, at base. Flowers white, in 10-15 cm. long simple, or branched, rigid spikes.

### Survey Record\* :

*Gwalior* : 110, 200, 224, 310, 340, 912, 976, 1068, 2880, 2945, 3087, 3316. *Bhind* : 1553, 1931. *Datiya* : 1431. *Shivpuri* : 2157, 3820, 4241, 4625, 4826. *Morena* : 2780.

### Claim of Utility :

Roots, leaves and whole plant are claimed to be medicinally useful. Throughout the circle, the plant has been recorded as a potent remedy for various ailments. In brief, these are : (i) abscess of mammary glands; (ii) fever especially remittent type pyrexia; (iii) common kind of boils and inflammation; and (iv) some infantile complaints i.e., rickets, marasmus and diarrhoea.

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\* S.M.P.G. Herbarium Specimens Examined.

Different formulae reported to be useful in the ailments are of both type—internal and external.

#### **Formulae and their mode of administration :**

**No. 1 :** Roots are pounded and then pasted over inflamed breasts. This external application is regularly used, preferably at the bed time and paste is cleared off in the morning. During acute stage, paste should be applied twice daily, morning and evening. As soon as the signs of relief come up, one pasting during each night is required till the complete relief. This treatment is advised for about a week.

**No. 2 :** Whole plant especially leaves alongwith black pepper (*Piper nigrum*) is boiled in water and then this preparation is internally given twice or thrice in a day to the patients of fever.

**No. 3 :** The paste of roots is topically applied to inflammation and boils; This therapeutic is administratively similar to No. 1.

**No. 4 :** Roots are mixed with mother's milk (by a sort of rubbing) and this preparation is orally given regularly, thrice in a day; and later twice, to infants ailing with marasmus, rickets and diarrhoeal complaints.

**No. 5 :** Roots are pounded with milk and this preparation is applied over burns.

#### **Specific Indication :**

The formulary recorded on the basis of folk medical traditions frequent application of drug (as shown in formula No. 1) is much emphasized by users for its promising results out of the different medicinal uses reported so far. Formula No. 5 has been reported in very few localities but it gives a good response as stated by its users.

#### **Availability, Collection and Supply :**

It thrives best in shaded, moist places. The typical radical leaves of plant forms beautiful carpet over the ground. On hilly slopes under the dense undergrowth of forests, the plant attains luxurious growth. The occurrence in open waste places is rather seldom.

Practically, the period ranging from rains till winters (when plant gets its full maturity) is suitable season for collection due to optimum alkaloidal potentiality; as also the leaves and whole plant alongwith flowers and fruits can easily be collected. In the same season the roots are dig out from the areas of fair growth. As per field experience, the summer collection of the drug becomes somewhat hard when the absence of leaves or their dryness gives no clue for identification of the source plant, though the roots may be of better potent value. The collected

material i.e., whole plant and roots are cleaned and properly dried in shade and neatly packed in air tight polythene bags.

Till to date, no report about the collection and supply of the plant either by Saharaiyas, villagers and drug contractors from the area is available.

*TRIDAX PROCUMBENS* Linn.  
(*Compositae*)

#### Local names

*Ghamra, Baramasi, Bhangra* and *Pila Bhangra\**.

#### Description :

Annual, erect or procumbent herb; stem and branches striate scabridy hairy. *Leaves* ovate-lanceolate, inciso-dentate on margins, acute at both ends. *Heads* 0.6-1.5 cm. across, solitary at ends of 8-30 cm. long, slender, straggling peduncles. *Achenes* : densely clothed with silky hairs.

#### Survey Record :

*Gwalior* : 73, 108, 365, 546, 600, 621, 745, 995, 1651, 2946, 2971, 2987, 3050, 3121, 3238. *Bhind* : 1566, 1940. *Datiya* : 1454, 3429, 3654. *Shivpuri* : 2117, 2161, 2522, 2593, 3803.

3941, 4023, 4247, 4902. *Morena* : 2754.

#### Claim of Utility :

The main parts of the plant which have been found medicinally useful in the area are : whole plant and leaves. Throughout the circle, the plant has been claimed to be most responsive remedy for fresh wounds and ulcers.

#### Formula and its mode of administration :

The whole plant, especially leaves (fresh) and also tender branches are pounded and made into a fine paste. This preparation is topically applied over ulcers and incised wounds caused with sharp weapons. The bandage is also used whenever it is necessary. The paste is applied with a thick coat over the injured region. After it gets dried, it is changed and wound is cleaned and the drug is repeated. This process is continued till the ulcer gets complete healing.

#### Specific Indication :

This remedy has been very frequently reported in many areas. Woodcutters, forest workers, farmers and tribal groups moving in

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\* These may confuse to some variety of *Bhrngaraja*, but it has no mention in the works referred to.

interior forests have been generally found acquainted with this folk therapeutic. During plants explorations in different forest ranges, practically the complete process of application of this remedy has been observed. It is notable that an incised wound requiring stitching certainly gets healed by proper application of this traditional remedy. The drug immediately checks haemorrhage and it is also very remarkable that no permanent scar is formed.

#### **Availability, Collection and Supply :**

The plant being one of the commonest weeds of the area which thrives on every type of soils is very commonly found in the area especially in grass lands, along roadsides, river banks and in crop fields and on old walls.

The collection of the plant may be made at any time and a fair growth is noted after rains. Probably for getting maximum medicinal potency, the plant after flowering and fruiting will be of effective use. There is no report of collection and supply from the area.

*ERIOCLAENA HOOKERIANA* W. & A. (Sterculiaceae)

#### **Local names :**

*Barabenda, Bhonti.*

#### **Description :**

Tree 3-4m. tall; young parts stellately pubescent; *leaves* roun-

dish, acuminate, serrate, condute.  
*Flowers* : many, 4 cm. across.  
*Fruits* : 2-6 X 2 cm., subglobose or avoid, pubescent, tubercled; seeds 1.2 X 0.7 cm.

#### **Survey Record :**

*Gwalior* : 964, 2293, 2333.  
*Shivpuri* : 4236

#### **Claim of Utility :**

The main parts which have been reported in medicinal use are : leaves and young branches.

Its utility has been reported as an effective healer of wounds and ulcers.

#### **Formula and its mode of administration :**

The leaves including young branches are pounded in water and made into paste. This preparation is externally applied over wounds of various kinds. A constant application of this plant is suggested by the traditional folk users.

#### **Specific Indication :**

This therapeutic has been specifically indicated for use in chronic wounds; and generally it is claimed, as a responsive healer of various types of chronic unhealthy wounds. The sources are only few to report this remedy as plant exploration could only record this plant twice in the area.

### **Availability, Collection and Supply :**

This plant has a very occasional occurrence and often been found on hilly slopes and dry hills.

The collection of raw material may be done at any time and throughout the year, but it gets optimum maturity during summers.

There is no report of collection of raw material from the area.

*ORTHOSIPHON PALLIDUS* Royle ex Benth. (*Labiatae*)

### **Local name\* :**

*Dimanjari, Dimanjar.*

### **Description :**

An erect, diffuse herb, 10-18 cm. long. *Flowers* : white, in lax, Nerticillasters, arranged in a raceme. Conspicuous. Salyx enlarging in fruit.

### **Survey Record :**

*Gwalior* : 80, 181, 343, 519, 762, 787, 934, 2925, 1970, 3138. *Bhind* : 1532, 1977, 2838. *Datiya* : 1443. *Shivpuri* : 3906, 4517, 4632.

### **Claim of Utility :**

The main parts of plants reported by the folk are : whole plant

and leaves. In various localities of Gwalior circle, this plant drug has been claimed to be useful remedy for complaints of fever and urinary disorders. Different therapeutics recorded in the field are of only internal use.

### **Formulae and their mode of administration :**

**No. 1 :** The whole plant is grounded and boiled in water in order to make the decoction. After decanting, the medicine with due posological consideration to age group, is orally given twice or thrice a day to patients of fever. Few sources also recommend an addition of black pepper to this preparation.

**No. 2 :** The whole plant is macerated in water. Some sources also report of preparing infusion of the whole plant. This medicine is internally administered twice or thrice to the patients complaining burning sensation in micturition and scanty urine.

In the both foregoing formulae, the use of leaves is also indicated in some of the localities.

### **Specific Indication :**

In the formulary reporting the medicinal uses of the plant, for-

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\* A possible source plant of Arjaka which is noticed in a work referred so far.



mula No. 1 has much reputation in the areas surveyed where it is especially employed to check remittent fevers i.e., malarial kind. Another information about this plant, which is recorded from folks as well as educated forest sources, has an interesting and notable reference i.e., there is common belief that snakes, after casting off their skin (slough), become non-poisonous. Such snakes use to eat this plant in forests and thus they restore to poisonous capability and earlier vigour. This information based on tribal and folk belief and experience, if correct, certainly indicates the medicinal potentiality of the plant.

#### **Availability, Collection and Supply :**

The plant is common throughout the circle and it is found very scattered in open dried grounds. A constant attempt is required to find out the plants on account of its scattered occurrence. The collection of plant, should generally commence by July-August after rains and continued till winters. October and November are considered to be the best months for collection of the drug i.e., whole plant etc. when plant reaches to full maturity. Various parts of the plant (whole plant and leaves are only reported useful till to date) are collected and kept under shade for drying.

There is no report of supply of this plant from the area.

**RIVEA HYPOCRATERIFORMIS**  
Choisy. (*Convolvulaceae*)

#### **Local names :**

*Parh, Phang.*

#### **Description :**

An extensive, woody *twiner*, young parts appressedly white tomentose. *Leaves* : 3-8x6-10 cm., broadly ovate or nearly orbicular, glabrescent above, densely white pubescent beneath, obtuse or abruptly shortly acuminate or emarginate at apex, broadly cordate at base. *Flowers* : white, 5-7 cm. long, few, in brown, apiculate.

#### **Survey Record :**

*Gwalior* : 68 83, 369, 406, 843, 967, 2930, 3100, 3127, 3233. *Bhind* : 2007. *Datiya* : 1405, 1484, 3411, *Shivpuri* : 2518, 2623, 3839, 4347, 4673.

#### **Claim of Utility :**

The main part of this plant is roots which have been generally reported in medicinal use.

Throughout the various localities of the circle, especially where the pockets of the tribal communities are noted, the plant has been frequently claimed by Shahrariyas and aged folks as an efficacious antidote against snake-bite.

### **Formula and its mode of administration :**

The roots are pounded and boiled in water to make the decoction. This preparation, after decantation, is constantly given to the person attacked with snake-bite at short intervals. Some sources also suggest to add few *margosa* leaves (*Azadirachta indica*; Nimba) and black pepper to this preparation. It is claimed, if the medicine is administered timely, this may certainly prevent development of signs of asphyxia "Gata" : A term used among tribals and folks while narrating severity phase in the cases of snake-bite).

### **Specific Indication :**

The frequent and authoritative reports of the use of this remedy against snake-bite much emphasize to be a responsive drug. This is notable that snake-charmers and footpath drug-sellers-cum-magicians have also been reported wandering in these forests to collect the roots of this plant which is always declared a secret remedy if they are crossed in the field. They usually keep the raw material of this plant among the life saving drugs in the form of anti-venom agents. This is also interesting and informative that these communities including traditional physicians, specialized to attend snake-bite cases in the

villages, often recite a lore which appreciates the potentiality of this drug among other similar drugs i.e., locally known as *Gunishar*, *Kali gunishar* and *Parh* (requiring botanical confirmation excepting *Parh* i.e., *Rivea* sp.).

### **Availability, Collection and Supply :**

The plant is an extensive woody climber commonly found on spiny bushes, small trees and particularly on hedges along roadsides and cultivated fields; in most of the localities of the area.

During rains, the collection of the drug is practically possible when the pure white scented flowers open at sun set and wither in the next morning. This characteristic makes the plant recognizable easily in the field. A period ranging from rains to winters when the plant gets full maturity, the collection of the are material (roots) should be carried out. The roots are dig up which are found very deep., long and stouty. After making the roots in pieces, these should be dried in shade and subsequently preserved in airtight containers.

There is no report of collection and supply of this plant excepting casual collection by traditional physicians or drug selling magicians for their secret medicinal uses referred above.

## Conclusion :

The data on plant drugs incorporated in this note are authentic and first hand. These are based on long and uninterrupted practical experiences in the field and careful interrogations with various category of peoples in different areas. Most of the drugs have been authoritatively claimed as most responsive remedies for respective complaints. It will be of worthuse, if their therapeutics are put to scientific laboratorial experiments and clinical trials. Later, if the drugs prove their efficacy, the formulae may be standardized and released to medical world for current practice.

These co-ordinated attempts will provide efficacious remedies and will make best use of readily available plant wealth on large scale. The preliminary methods and applied informations on collection and supply from the area will also help in further work. To facilitate easy identification in the field, the line drawings of 'habit sketch' of plants reported are provided (See Plate I). This line of working would also lend support in revival of Indian Medicine and serving best to the basic cause of such medicinal plants survey researches.

## Acknowledgement :

Authors are grateful to the Director, C. C. R. I. M. H., New

Delhi for his keen interest towards the survey of medicinal flora of Madhya Pradesh and his constant emphasis on ethno-medical studies.

The study could be completed successfully with the active co-operation of officials and staff of Forest Deptt., Gwalior Circle who carried us in interior of the forests and helped to get in touch with tribal communities who are often reluctant to disclose their hidden treasure of plants knowledge. We thank them in their collective anonymity. The staff of survey party also deserve a mention for cooperation during field work.

## सारांश

इस लेख में ५ निम्नलिखित वान-स्वतिक औषध दावों की चिकित्सा उपयोगिता पर प्रकाश डाला गया है :

१. ट्राईडेक्स प्रोक्मबेन्सलिन,
२. इलिट्रेरिया एक्यूलिस लिन्डाऊ,
३. इरीलेने हूकेरियेना,
४. आर्थोसिपन पालिडस रॉयल एक्स बेन्थ ।
५. रीविया हाइपोक्रैटेरिफोर्मिस ।

जैसा कि लेखक को ज्ञात है कि यह औषध दावे चिकित्सा विज्ञान के लिए बिल्कुल नये हैं, इन औषध दावों, उद्भव, स्थान, उपयोगिता, औषध के प्रयोज्य अंग, योग और उनका विभिन्न रोग में उपयोग की

विधि, एकत्र करने का कार्य क्षेत्र एवं आपूर्ति आदि पर मविष्य में कार्य करने की विधि भली प्रकार से दी गई है।

### १. ईलिट्रिया एक्युलिस लिन्डाऊ :

इसका प्रचलित स्थानीय नाम 'पत्थरसगा', 'गुडपसारी', 'सासमूला' आदि हैं। इसके जड़, पत्र एवं पंचांग चिकित्सा उपयोग में लाये जाते हैं। इसका उपयोग स्तन ग्रन्थि, विदर्घि, अल्पविराम ज्वर, विभिन्न पीड़िकाएं एवं शोफ तथा बच्चों के सूखा रोग एवं अतिसार में प्रयोग करते हैं।

### २. ट्राईडेक्स प्रोकम्बेन्सलिन :

इसका स्थानीय नाम 'कामरा', बारह-मासी', 'भंगरा' एवं 'पीत भंगरा' है। इसका मुख्य प्रयोज्य अंग पत्र एवं पंचांग है। यह ताजे घाव एवं व्रण पूरण में उपयोगी है। इसका ग्रामीण लोग अधिक प्रयोग करते हैं।

### ३. इरीलेने हूकेरियेना :

इसका स्थानीय प्रचलित नाम 'बार-वेन्डा' तथा 'भोटि' है। इसका प्रयोज्य अंग पत्र तथा पौधे के नवीन तने हैं।

इसका मुख्य उपयोग क्षति एवं घाव में किया जाता है। इसमें से भी यह पुराने घावों में अधिक उपयोगी बताया गया है।

### ४. आर्थोसिपन पालिडस रॉयल एक्स बेन्थ :

इसका स्थानीय प्रचलित नाम 'डिमंजेरी' तथा 'डिमंजार' है। मुख्य प्रयोज्य अंग पत्र एवं पंचांग है। यह मुख्यतः ज्वर तथा मूत्र विकार में दिया जाता है।

### ५. रीविया हाइपोक्रोटेरिफोर्मस :

इसका स्थानीय प्रचलित नाम 'पारह' एवं 'फंग' है। इसका प्रयोज्य अंग जड़ है। इसका ग्रामीण लोग सर्पदंश में प्रयोग करते हैं।

उपरोक्त औषध दावों को प्रयोग करने के पूर्व इस पर वैज्ञानिक प्रयोगशालीय परीक्षण एवं निदान चिकित्सा परीक्षण कर लेना अच्छा होगा। यह औषधियां विभिन्न रोगों के लिए उपयोगी सिद्ध हों तो औषध योगों का मानकीकरण करने के बाद सामान्य जनता में चिकित्सोपयोग के लिए लेना श्रेष्ठकर होगा।

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