

Folk Ethnotherapies on Scorpion Sting among Tribals of East Khandesh Region of Satpuda Forest, Maharashtra, India

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Abstract: Study covers the area falls in Jalgaon district situated between 20°-17' and 21°-26' north latitude and 74°-47' and 76°-28' east longitude. Topographically it can be distinguished as 1) The Tapi rich valley in the centre, 2) The high mountainous ranges on the north & 3) Barren ridges of Satmala and Ajanta ranges on the south. The study is confined to first two regions only and more specific to Satpuda mountainous ranges from 2006-2009. Present study reveals about total no. of medicinal plant families '82' composed of pteridophytes (3), Dicots (66), and monocots (13). The genera are 234, spread over pteridophytes (3), dicots (209) and monocots (22). Similarly Species are 270 out of which pteridophytes are (3), dicots (244) and monocots (23). The most Prominent & common method of administration of medicinal plants is oral 252(56.00%) followed by external 109(24.22%), internal applications are 49 (10.08%), poultice 31 (6.88%), smoking 3 (0.66%) and inhalation 4 (0.88%) and steam bath 2 (0.44%). The present paper highlights 06 less known ethnomedicinal plants used for Scorpion sting with reference to botanical name, family, part(s) used, distribution, threat Status, & mode of administration.

Keywords: East Khandesh, Satpuda, Scorpion Sting, Mountainous Ranges

1. Introduction

Most of the countries worldwide have compiled the information on traditional medicines of centuries old. In India ancient drugs have been mentioned in Rig-Veda which is about 4000-5000 B.C. old. Atharva Veda also described about 2000 medicinal plants. Well documented accounts on properties of medicinal plants are found in Sushruta, Samhita of 1000 BC. Indian Materia-medica accounts about 3500 medicinal plants. Satpuda is rich in biodiversity both in flora and fauna. Tribal's (several tribes like Pawara, Barela & Bhills.) are the inhabitants of the area of Satpuda forest. These people are very poor and cannot afford the expenses for modern medical facilities; hence they are depending on local medicine men who help them to cure their ailments at lowest cost. East Khandesh Satpuda lies on northern part of Jalgaon district. It is rich in vegetation composed of humid and many semievergreen species apart from dry deciduous ones. The climate is generally dry except in monsoon. Rain fall is 639.7 to 696.0 mm. The forest types of Satpuda ranges classified by Champion and Seth in 1966 are Dry Teak forest, Southern Dry mixed deciduous forest, Anjan forest & Scrub forest. Studies on medicinal plants of the area are lacking except few sporadic references like Karnik, 1966[13]; Bhamare, 1989[8]; Salunkhe, I.B.1995. [15] Rajput & Yadav, 2000[14]; Yadav & Patil, 2001[17], Bagul, R.M. and Yadav S. S. (2003 a & b)[1&2], Bagul R.M. & Yadav S.S and B.D. Garud; (2006)[3], Bagul R.M. & Yadav, S.S, (2007)[4], Bagul R.M. 2010[5], 2011a[6] & b[7],[18-20]..

2. Materials and Methods

Present study is based on the field work and literature survey from June 2006 to July 2008 through systematic planning and meticulously exploring the areas for gathering various information related to medicinal uses of plants, During outgoing all the information collected were noted in field

book. Pertinent attention was paid to habit, habitat, distribution pattern, diseases for which plants used doses and mode of administration. As far as possible correct information were confirmed by repeated queries at different places. Specimens collected during the field work are processed for herbarium as per the customary methods suggested by Jain & Rao (1977)[12]. Specimens thoroughly studied for correct identification with the help of standard floras viz. Flora of Presidency of Bombay (Cook, 1957 Repr.ed.)[9], Flora of British India (Hooker, 1872-1897)[11], B.S.I. Flora of Maharashtra State, Vol. I.II.&III. (Edited by Sharma et al, 1996; Singh & Kartikeyan, 2000; Singh & Laksh 2001)[16]. G.P.Roy, B.K.Shukla & Bhaskar Dutta 1992 Flora of Madhya Pradesh [10]. (The identification was confirmed by authentically identified species at B.S.I. Pune. Herbarium sheets were neatly labeled and deposited in the herbarium of department of botany, A.S.C. College Chopda

Simple Questionnaire (Jain and Bose 1993) used for data collection is like Occurrence of Plant, Respondents age, sex & education, Community Status (medicine man, nurse, doctor), Forest type where plant was found & its availability in nature (Common, Frequent, Rare, Occasional etc), part used to treat part used, Mode of administration (oral, external) & dosages given with, & How many times & days the drugs prepared roughly given (glassful, teaspoonful, paste.).

3. Results

Following are some plants used against Scorpion Sting given with reference to Vernacular Name Botanical Name, Family, their Distribution, Threat status and Mode of administration of Ethno medicine

1. AAGRI

Arisaema tortuosum (Wall.) Schott.

ARACEAE

Errect perennial herbs, tubers spherical. Leaf 1 or 2 palmatisect, segments 5-7 elliptic or elliptic-obovate; spathe cuncullate, tube 3-5 cm long, Limb 6-8 cm long, sterile part of spadix as long as or longer than limb, caudate at tip. Berries orange-red or deep-red.

Distribution : Occasional in Satpuda forests,
Threat Status : Vulnerable

Mode of administration:

Paste of the whole plant is applied on Scorpion sting bite externally.

Fish poison: In case of fish poison and to kill Rats' fruit juice is given with pills prepared from edible foods.

Exsiccata : RMB 207 Vajapur.

PAPADA/SITAPALI

Holoptelia integrifolia (Roxb.) Planch

ULMACEAE

Deciduous trees, with grayish-white or ash-colored, smooth bark, exfoliating into small scales. Leaves coriaceous. Flowers minute, greenish-yellow. Fruit broadly oblong, orbicular, deeply notched at apex. Seeds ovate or ovate oblong.

Distribution : Frequent,
Threat Status : Vulnerable

Mode of administration: Paste of the whole plant is made with water & applied on Scorpion sting bite externally.

Seed paste mixed with wheat floor is used for fish poisoning & also in rat killings.

Exsiccata : RMB 318, Melane

3. KALA DHOTRA/DHANTURO

Datura innoxia Mill.

SOLANACEAE

Tall, glabrous annuals. Leaves broadly ovate-triangular, entire or shallowly lobate. Flowers tinged purple or wholly purple, axillary, solitary. Capsules drooping, with stout tubercles. Seeds orbicular, smooth.

Distribution : Not common, found in dense forests of Manudevi,

Threat Status : Not threatened

Mode of administration: Paste of the whole plant is made with water & applied on Scorpion sting bite.

Leaves and seeds are given in case of. Fish Poisoning

Exsiccata : RMB 202, Manudevi.

4. HINGANBET

Balanites aegyptiaca (L.) Del.

BALANITACEAE

Armed deciduous, bushy shrubs or small trees. Leaves petiolate, leaflets elliptic-oblong, pubescent. Flowers pale-greenish-yellow, in axillary, fascicled cymes. Drupes yellowish-green when ripe.

Distribution : Through out in scrub forest,
Threat Status : Critically Endangered

Mode of administration: Paste of the bark of the plant is made into the water & applied on scorpion sting bite

Critical Note : Leaves and bark used as fish position (Salunkhe, 1995)

Exsiccata : RMB 374, Dhavali.

5. GIDANI

Aristolochia bracteolata Lam.

ARISTOLOCHIACEAE

Prostrate, perennial herbs or under shrubs. Leaves broadly ovate or reniform, glabrous. Flowers dark-purple, axillary solitary. Capsule, oblong-ellipsoid, glabrous.

Distribution : Throughout in plains,

Threat Status : Endangered

Mode of administration: Root Paste of the plant is made with water & applied on Scorpion sting bite.

Root ash mixed with food used as fish poison

Exsiccata : RMB 337, Malapur.

6. THOR/SHER

Euphorbia tirucalli L.

EUPHORBIACEAE

Succulents, dichotomously branched, with white, milky latex, bark-ash coloured wrinkled, rough, ultimate branches dark green smooth. Leaves minute, cauducous.

Distribution: Throughout naturally on waste lands.

Threat Status: Not Endangered

Mode of administration: Paste made with latex of the whole plant is applied on Scorpion sting bite. The branches with latex of the whole plant is crushed to make paste and mixed with food for fish poisoning

Exsiccata: RMB 507, Karjane.

4. Discussion and Conclusion

Most of the information reported from the tribal's of the area is found to be less known to the literature of Indian medicinal plants. The plants mentioned here are still popular in this area and enjoyed good reputation in traditional medicines used on Scorpion Sting. It is also found that all the plants used for scorpion sting bite are used for fish poisoning also but there is no report of severe infections by using these poisonous plants. Most of the drugs are utilized in fresh mode and in the form of paste mixed with food and water. It is also needed to evaluate pharmacologically the efficiency of these plants against fish poison claim. Most of the plants reported herewith are under threat due loss of vegetation and excessive exploitation for medicinal purpose of fish poisoning. It is necessary to make further investigations on these ethnomedicines for conservation of biodiversity to protect extinction of the ethno medicinal plants. There is also need to brought these plants under cultivation in a systematic manner to meet demands from traditional drug based market. From the study it can be observe that most of prescriptions are applied externally. Generally single plant part is used but sometimes many plant parts in combinations are also used for the treatment of diseases. Rhizome and tubers and flowers are surprisingly used rarely, may be attributed that people have tendency to conserve such rhizomatous and tuberous plants.

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