

Traditional Phytoremediation against Snake bite and Scorpion sting practiced by Santals of Dumka District Santal Pargana, Jharkhand

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ABSTRACT

Dumka district is dominated by Santals, the largest numbered tribe of Jharkhand. They are mostly forest dwellers or live in the near vicinity of the forest. Frequenting the forest is their daily routine of life. In the process they came across the casualties of wild life like scorpion sting insect crawl, allergies caused by spiders and other poisonous insects but they know how to treat themselves with phytoremediation, a traditional knowledge inherited by them from their fore fathers. A survey was conducted to get information and to document the ethnomedicine which the Santals called *ran*.

Key words : Santals, Santali, ran, Santali.

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INTRODUCTION

Phytoremediation is the traditional method of health care inherited by the Santals from their ancestors. An exclusive method of health care which is passed on from one generation to the next. Santals are mostly forest dwellers, many have cleared the land for agriculture and live in the nearest vicinity of the forest. Forest acts as one of the means of livelihood as they collect day to day artifacts from it. No doubt they have to combat with the major and minor casualties of jungle life. Some of the mishaps are scorpion sting, insect crawl, allergy due to spiders and other poisonous insects and even snake bite but every Santal is supposed to know the curative properties of plants around them and the treatment. Medicine is called *ran* in Santali dialect and they know how to used these *ran* as life saving drug for their survival.

MATERIALS AND METHOD

Studied Area :

The area of study i.e. Dumka district is situated at altitude of 86°16' North and longitude of 87°15' east with an average elevation of 137 meter (449 ft) from sea level. Topography of land consists of high ridges

and valleys surrounded by small hills and ridges. The district has an average area of 3716.02 km² and with only one Subdivision, Dumka. It consists of 10 Blocks namely Dumka, Jama, Jarmundi, Kathikund, Masalia, Gopikandar, Ramgarh, Raneshwar, Ramgarh, Saraiyahat and Shikaripara.

Ethnic groups:

Santals are the dominant tribe of the area Other important tribes were the Paharia's (Mal Paharia and Sauria Paharia), Other Tribes like Oroans, Bedia, Mohli, Korea, Karmali etc also inhabit the land.

Ethnomedicinal Study

The study was conducted in different villages for 13 months. The informants were about 30-75 years of age. Information was gathered from village elders, experienced persons, Pradhans and herbal practitioners. Information was seek about their daily routine of life Repeated interview and friendly talks were used as tools of information. Field work was done under their guidance and with Collection of medicinal plants. Information were noted as accordingly cotton (1996) and Jain goel (1995), Haines 1925, Raizada 1976. Voucher specimen were collected.

Enumeration of ethnomedicinal plants

Sl. No.	Botanical Name	Vernacular Name	Family	Habit	Form	Curative Property
1	<i>Bauhinia purpurea</i> L	Sin arak'	Caesalpinaceae	Tree	Paste	Snake bite
2	<i>Moringa oleifera</i> Lam	Munga arak'	Moringaceae	Tree	Paste	Snake bite
3	<i>Nyctanthes arbotristis</i> L	Saparom	Oleaceae	Tree	Paste	Snake bite
4	<i>Tamarindus indica</i> L	Jojo	Caesalpinaceae	Tree	Paste	Scorpion sting
5	<i>Pongamia pinnata</i> L	Koronjo	Papilionaceae	Tree	Paste	Scorpion sting
6	<i>Boerhaavia diffusa</i> L	Ohoc' arak'	Nyctaginaceae	Herb	Root	Snake bite
7	<i>Andrographis paniculata</i> Nees	Gusum puru	Acanthaceae	Herb	Root	Snake bite
8	<i>Eclipta aspesa</i> Roth	Kesari	Asteraceae	Herb	Whole plant	Scorpion sting
9	<i>Leucas alba</i> Hassk	Dhurp arak'	Lamiaceae	Herb	Leaves Paste	Scorpion sting
10	<i>Cassia tora</i> L	Chakonda	Caesalpinaceae	Herb	Root	Snake bite Scorpion sting
11	<i>Solanum nigrum</i> L	Burudiang	Solanaceae	Herb	Root/ Leaves paste	Scorpion sting
12	<i>Butea monosperma</i> Lamk	Murup	Papilionaceae	Tree	Leaves paste	Scorpion sting
13	<i>Achyranthes aspera</i> L	Kakralatha	Amaranthaceae	Herb	Bark	Snake bit Scorpion sting
14	<i>Aristolochia indica</i> L	Jhunka god	Aristolociaceae	Herb	Leaves juice	Scorpion sting
15	<i>Cassia sophera</i> L	Marang chakonda	Caesalpinaceae	Herb	Root powder	Snake bite
16	<i>Sida acuta</i> Burm	Bir mirau baha	Apocynaceae	Herb	Root Paste	Scorpion sting
17	<i>Rauvolfia serpentina</i> L	Nagbail	Apocynaceae	Herb	Root Paste	Snake bite
18	<i>Martynia annua</i> L	Bagluca	Martyniaceae	Herb	Roots	Snake bite
19	<i>Andrographis echinoides</i> L	Gusum puru	Acanthaceae	Herb	Whole plant	Snake bite
20	<i>Vitex penduncularis</i> Wall	Simkata	Verbenaceae	Shrub	Leaves Juice	Scorpion sting

RESULT AND DISCUSSION

20 species were enumerated belonging to 15 families as the herbal remedy of snake bite and scorpion sting. Most used plant species were of family Fabaceae (30%) with sub family, Caesalpinaceae and Papilionaceae. Some plants like *Achyranthes aspera* and *Cassia tora* were used commonly for both snake bite and scorpion sting. By habit most plants were herbs (50%) and the whole plant or its leaves were used. In case of shrubs and tree's, roots, bark and leaves were used. Most used external application was in the form of paste where as fresh juice or extract of leaves was given orally.

CONCLUSION

Santals are forest dwellers and their struggle for being alive had expertised them in methods of self remediation. For collection of artefacts of daily livelihood they had to frequent the jungle may it be collection of fuel, fodder and food, honey, gums and

resins. It is but natural to combat with the dangers of wild life. Minor casualties like scorpion sting etc is common with serious matter like snake bite but Santals having the valuable gift of traditional phytotherapy knowhow to manage such situations.

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