IOSR Journal Of Environmental Science, Toxicology And Food Technology (IOSR-JESTFT)
e-ISSN: 2319-2402,p- ISSN: 2319-2399. Volume 8, Issue 1 Ver. IV (Feb. 2014), PP 52-55
www.iosrjournals.org

Ethnomedicinal Plants Used As Antidote for Snake- Bite and Scorpion-Sting in Bundelkhand (U.P.), India

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Abstract: *Snake-bite and Scorpion sting are an important medical emergency in many parts of the the South East Asian Region. It results in the death or chronic disability of many active younger people, specially those involved in agriculture and forestry. During the taxonomic and medicinal survey of Bundelkhand in 2010-2013 the plants were collected and the interview was carried out in local community specially by ethenic groups (Saharia , Kols, Nath, Kabootra, Lodh and Sapera) who are in a good number in the Bundelkhand region of Uttar Pradesh, India. The paper presents 23 Angiospermic species belonging to 21 genera and 16 family.*
Key Words : *Ethnomedicinal plants, Ethenic groups, Antidote, Bundelkhand.*

I. Introduction :

From ancient times poisonous animal bite is a serious issue in world. Millions of people die every year because of poisonous animal's bite, snake bite cases being the most common culprit. Following this, scorpion sting is also a common and global public health problem associated with substantial sickness and mortality. Conservative sources of snake bite estimate that the number of accidents globally reach 2.5 million and more than 1,25,000 deaths (*Wingert and Chan, 1988)*, annually. In India alone, more than 200,000 cases of snake bite are reported and estimated 35,000 to 50,000 people die (Sharma et al., 2004., John Sudworth, 2006) and number of scorpion stings cases exceeds 1.23 million, of which over 32,250 may be fatal each year(Chippaux, J.P., et al., 2008). Snake bite and scorpion sting are major health hazards that lead to high mortality and great suffering in victims. The monopoly of snake bite healers is because they do not give information to the people, partly due to their unknown materia medica, and occult-mystical nature of their practice. Traditionally people in Bundelkhand specially the local healer (Ojha, Vaid) and other community posses considerable knowledge of the therapeutic properties of local plant species. Local knowledge on ethnomedicine is revolutionary way to recast our conventional knowledge.

II. Material And Methods :

The study was conducted in Bundelkhand region (U.P), which comprises seven districts viz. Jhansi, Lalitpur, Jalaun, Hamirpur Mahoba, Banda, and Chitrakoot. The information was collected. Several field trips were made during 2010-2013 specially in the Tribes villages. The indigenous knowledge and therapy of medicinal plants for Snake bite and Scorpion sting care was gathered from the tribe chief, old and experienced informants at different villages and localities. The plants were collected, identified and photographs were taken. Boucher herbarium specimens were deposited in the department of Botany, Pt. J. N. P. G. College Banda (U.P.).
OBSERVATION **:** The present study reveals 23 angiospermic species which are used in treatment of snake-bite and scorpion-sting. The botanical name of each species with family, local name, part used and doses are given below.

***1. Acacia catechu* Willd.**
Family **:** Mimosaceae
Local Name **:** Katha / Khair
Part used **:** Bark
Doses : Bark is a reputed medicine in the treatment of snake-bite.

***2. Acacia sinuate* (Lour.) Merr.**
Family **:** Mimosaceae
Local Name **:** Aita
Part used **:** Pod
Doses : Pods are used in the treatment of snake-bite.

***3. Achyranthes aspera* Linn.**
Family **:** Amaranthaceae
Local Name **:** Chirchita
Part used **:** Root
Doses : Decoction of root is given in scorpion-sting.

***4. Albizia procera* (Roxb.) Benth.**
Family **:** Mimosaceae
Local Name **:** Siris
Part used **:** Pods
Doses **:** Pods are considered useful in snake-bite.
***5. Alternanthera sessilis* (Linn.) DC.**
Family **:** Amaranthaceae
Local Name **:** Girni
Part used **:** Root
Doses **:** Root is used in snake-bite.
***6. Amaranthus gracilis* Desf.**
Family **:** Amaranthaceae
Local Name **:** Chaulai
Part used **:** Leaves
Doses **:** The paste made from leaves is applied to scorpion-sting.
***7. Bacopa monnieri* (Linn.) Penneli.**
Family **:** Scrophulariaceae
Local Name **:** Nir-Bramhi
Part used **:** Stem & Leaves
Doses **:** The decoction of stem and leaves are useful in snake-bite.
***8. Barringtonia acutangula* (Linn.) Gaertn.**
Family **:** Lecythidaceae
Local Name **:** Paniha
Part used **:** Seed
Doses **:** Seeds are used for snake-bites.
***9. Capparis zeylanica* Linn.**
Family **:** Capparidaceae
Local Name **:** Bhagnaha
Part used **:** Fruits
Doses **:** The pickled fruits are eaten as a precautionary measure against snake-poisoning.
***10. Cleome gynandra* Linn.**
Family **:** Cleomaceae
Local Name **:** Safed hurhur
Part used **:** Whole Plant
Doses **:** Plant sap is applied as an antidote to scorpion-sting.
***11. Eclipta alba* (Linn.) Hassk.**
Family **:** Asteraceae
Local Name **:** Ghamra
Part used **:** Whole plant
Doses **:** The decoction of plants is considered as an excellent cure for Scorpion-sting.
***12. Euphorbia thymifolia* Linn.**
Family **:** Euphorbiaceae
Local Name **:** Chutti dudhi
Part used **:** Leaves
Doses : 1-2 gm. Powder of leaf along with black pepper give orally to snake-bite patient.
***13. Ficus racemosa* Linn.**
Family **:** Moraceae
Local Name **:** Gular
Part used **:** Leaves
Doses **:** The leaf paste used as antidote for scorpion-stings.

***14. Holarrhena antidysenterica* (Roth.) A. DC. Prodr.**
Family **:** Apocynaceae
Local Name **:** Indrajau
Part used **:** Seeds
Doses **:** The seeds are used as an antidote against poison and relieves pains

and swellings in snake-bite.

***15. Leucas aspera* Spreng.**
Family **:** Lamiaceae
Local Name **:** Guma
Part used **:** Leaves
Doses : Leaf decoction is given orally in snake- bite.

***16. Leucas cephalotes* Spreng.**
Family **:** Lamiaceae
Local Name **:** Kalesher
Part used **:** Fruit
Doses : Fruit extract is dropped in ear and given orally at intervals of fifteen minutes as an antidote for snake-bite.

***17. Pentapetes phoenicea* Linn.**
Family **:** Sterculiaceae
Local Name **:** Dupahriya
Part used **:** Root
Doses : Root is used in the treatment of snake-bite.

***18. Pogostemon benghalense* (Burm. f.) O. Kuntze.**
Family **:** Lamiaceae
Local Name **:** Sangh
Part used **:** Root
Doses : Root is used in snake-bite.

***19. Schleichera oleosa* (Lour.) Oken.**
Family **:** Sapindaceae
Local Name **:** Kusum
Part used **:** Flower
Doses : Flower is used for the treatment of snake-bite.

***20. Semecarpus anacardium* Linn.**
Family **:** Anacardiaceae
Local Name **:** Bhella
Part used **:** Root
Doses : Root is useful against snake-bite.

***21. Terminalia arjuna* (Roxb. ex. DC.) Wt. & Arn.**
Family **:** Combretaceae
Local Name **:** Arjun
Part used **:** Bark
Doses : Ash of bark is used in scorpion –sting.

***22. Tiliacora acuminate* (Lamk.) Miers.**
Family **:** Menispermaceae
Local Name **:** Karwanath
Part used **:** Root
Doses : The juice of the root in water is given as a drink to cure snake-bite.

***23. Wrightia tinctoria* R. Br.**
Family **:** Apocynaceae
Local Name **:** Dudhi
Part used **:** Bark & Leaves
Doses : The bark and leaves are useful in snake-bite and scorpion-sting.

RESULT AND DISCUSSION **:** The ethnic and rural people of Bundelkhand have preserved a large number of traditional knowledge of medicinal uses of plants growing around them. This study shows that knowledge and use of herbal medicine for the treatment of Snake bite and Scorpion sting ailments which is common problems of Bundelkhand, particularly in rainy season. 16 Species are used in snake-bite 6 species are used in scorpion-sting and 1 species is used in both problems.

Acknowledgments :

The authors are very grateful to the ethenic groups (Saharia , Kols, Nath, Kabootra, Lodh and Sapera) of Bundelkhand. for sharing their knowledge and Dr. N. L. Shukla Principal Pt. J. N. P. G. College Banda for providing necessary facilities.

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