

LUFFA ECHINATA: A VALUABLE MEDICINAL PLANT FOR THE VICTIMS OF DOG BITE

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Abstract: The use of herbal medicine for the treatment of various diseases is increasing day by day due to no side effect. During survey it was observed that more than 80 medicinal plants are being used in curing the various diseases by the Tribal community (Tharus) of Khatima. *Luffa echinata* is one such medicinal plant which has not grabbed considerable attention, however it is used to treat the victims of dog bite and more than 500 people have been treated successfully in this area. This research article illustrates how the victim of dog bite is treated with this plant and it also provides a novel idea for further research on the phytochemical aspects of this plants which might lead us towards the development of new medicines for the welfare of human being.

Keywords: Dog bites victims, Phytochemical, Diseases and Tribal areas.

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INTRODUCTION

India is a variable place of medicinal and aromatic plants. The Tharu Tribe is one of the most populated tribe of India and Nepal. Tharus are indigenous people living in the Tarai plains on the border of Nepal and India. The majority of Tharus live in Nepal where they constitute 13.50% of total population of Nepal. The smaller numbers of Tharus reside in the adjacent Indian district like Champaran district of Bihar, Gorakhpur, Basti and Gonda of Uttar Pradesh and Udham Singh Nagar of Uttarakhand. In Udham Singh Nagar of Uttarakhand, they live in many villages like Deuri, Chandpur, Diya2 and Diya4, Jhankat, Bigrabag, Shripurbichhua, Chhinkii, Chakarpur, Unchimahuat, and Nagalatarai of Khatima Block. These people have a close relationship with their ambient environment and basically depend on it for primary health care as they live in remote localities far away from medicinal facilities. Tribal people are the ecosystem people who live in close harmony with the nature and maintain a close relationship between man and environment and indigenous cultures are closely maintained by the tribal and other forest dwellers throughout the world (Sharma *et al.*, 2011a, b, c). Although different workers have documented the uses of various medicinal plants from different parts of India (Rao 1981; Siddiqui *et al.*, 1995; Kumar *et al.*, 2006; Gaur *et al.*, 2010; Pandey and Pandey 2010; Singh *et al.*, 2010; Phondani *et al.*, 2011; Srivastav *et al.*, 2012; Yadav *et al.*, 2011) but information on indigenous medicinal practices yet to be properly documented. Concerted efforts on such studies have revealed important information on the indigenous knowledge of vegetation particularly in the field of medicine. During survey in the Khatima area more than 80 medicinal plants have been recognized like *Abutilon indicum*, *Abrus precatorious*, *Achyranthus aspera*, *Aegle marmelos*, *Allium sativum*, *Bombax ceiba*, *Carica papaya*, *Chenopodium album*, *Cyprus rotundus*, *Coriandrum sativum*, *Colocassia esculenta*, *Cinnamomum tamala*, *Daucus carota*, *Ficus glomerata*, *Mentha spicata*, *Musa paradisiaca*, *Morus alba*, *Murraya koingii*, *Leontodon taraxacum*, *Piper longam*, *Oxalis corniculata*, *Sida cordifolia*, *Sesame indicum*, *Mangifera indica*, *Raphanus sativus*, *Salvia plebean*, *Zingiber officinale* and *Luffa echinata* and are used in curing the various diseases. Among these medicinal plants, the *Luffa echinata* is one of the most important medicinal plants which are used to treat the victims of dog bite. *Luffa echinata* belonging to the family Cucurbitaceae is known by various Vernacular name as: Bandala, Dali, Deotada, Jimuta, Devedali, Kadamba in Sanskrit, Devatada in Bengali, Bristy luffa in English, Devadangar, Daevadaali, Daevadangari in Kannada and Bidali, Bindaal, Kakora, Ghagerbel, Kukurlata, Dutar toru, Jangli toru, Duttar toru in Hindi. Locally it is known as Titaua. It is widely distributed in Uttar Pradesh, Uttarakhand,

Bihar and Hariyana in India and also in tropical Africa, and Burma. The plant is a climber herb with bifid bristly or smooth tendrils; the fruit is intensely bitter and is used as blood purifier, anti-inflammatory, cough- expectorant, diuretic, antihelmintic, purgative and digestive etc. The flowering occurs in September and October.



MATERIALS AND METHODS

This study was carried out during different period of 2011-2012. Information provided in the study is only from the different villages of Block Khatima of District Udham Singh Nagar. The villages were randomly selected and the people of this tharu tribal area were interviewed about the medicinal and aromatic plants. Questionnaire was prepared to interview the members of Gram Panchayat, Vaidya/Practitioner, local people, and also with members of Mahila Samakhya (women organization) to extract the indigenous knowledge of the medicinal plants. During the study more than 80 medicinal plants were found and the information collected from the local people were confirmed through review of secondary information, gathered from numbers of books (J.F. Caius., 2003 and George Graves., 1996), reports, and published and unpublished research papers. During this study, we frequently visited one such Vaidya/ Practioner who used to treat dog bite victims and whenever any victim visited the Vaidya/ Practioner we also visited the Vaidya to observe how he treats the victims of Dog bite and thus more than twenty dog bite victims were treated successfully during our frequent visit to practitioner and he claimed to treat more than five hundred patients during his practice. In the treatment of dog bite victims the methods and process which are taken into consideration are as follows.

A complete mature and dried fruit of this plant is taken for curing dog bite victim and black covering consisting of thorny structure of fruit is removed and hence mature sponge of fruit is obtained and is soaked in a glass of water for 5-10 minutes. The soaked sponge of fruits is squeezed properly in glass of water and then this squeezed material of fruit which is extremely bitter is given to victim of dog bite in the morning with empty stomach. Having given this squeezed material to the victim, following symptoms are seen.

- After 3-4 hour, the victim feels nausea and will vomit. In the vomiting of victim the green substances mixed with mucous which is considered as poison of dog is observed.

- After vomiting the victim feels lightness and comfortable and in the evening when victim is feeling comfortable, he/she is advised to take curd.

Thus a glass of squeezed fruit material of this plant is enough to cure the patient of dog bite and in rare case if he feels some problems; and is not completely recovered he is given one more dose as described above.



RESULTS AND DISCUSSION

The present study was carried out during different period of the year 2011-2012 and the study documented total 80 ethno medicinal plants belonging to 43 families under 65 genera that are being traditionally used by the local people (Tharu) of Khatima Tehsil. Among the plants surveyed majority of the plants were Herbs followed by shrubs, trees and climbers. The plants were found to be effective against digestive disorders like dysentery, diarrhoea, constipation; cuts and wounds, joint pains, asthma, bronchitis, jaundice, antidote, inflammations, anemia, headache, stomachache, urinary trouble, liver problems, cardiac disorders, mental disorder, paralysis, epilepsy, skin ailments, fever, impotency, antifertility, general weakness and abdominal pain etc. Among these 80 medicinal plants the *Luffa echinata* which is used to treat dog bite victims and more than 500 people have been treated successfully till now and among these 500 dog bite victims more than twenty patients have been treated before us during study and no side effect was observed.

CONCLUSIONS

Thus from the above study we reached on the conclusions that all these 80 medicinal plants as well as the specific plant *Luffa echinata* might leads us to development of new medicine for the welfare of human being in future and the potential of *Luffa echinata* to cure dog bite victims encourages us to analyze its fruits for its phytochemical properties which might lead us to the path to develop a new drug.

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