Herbal Remedies Used in the Treatment of Scorpion Sting from the Nizamabad District, Andhra Pradesh, India

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ABSTRACT
The present survey provides information on the therapeutic properties of 18 crude drugs used for by the natives of Nizamabad District. Of the Eighteen species that presented here, 12 had not been previously reported. Information on botanical names, vernacular name, family, part used, mode of drug preparation and administration is provided.

Keywords: Scorpion sting, Indigenous folklore, Nizamabad, Andhra Pradesh.

INTRODUCTION
Nizamabad district is situated in the northern part of the Andhra Pradesh and is one of the 10 districts of Telangana region in the state of Andhra Pradesh. It lies between 18°5’ and 19°0’ of the northern latitudes, 77°40’ and 78°37’ of the eastern longitudes. The district is bounded on the North by Adilabad district, East by Karimnagar District, South by Medak district and West by Bidar District of Karnataka and Nanded district of Maharashtra. The geographical area is 7956 Sq. Kms i.e. 19,80,586 acres spread over 923 villages in 36 mandals. Major rivers, such as, Godavari and Manjeera crosses Nizamabad district with some other streams Kalyani, Kaulas, Peddavagu also exist in the district.

The forest is covering an area of 1.67 lakes hectares (4,18,450 acres) forming 22% of the total geographical area of the district. The forests fall under the category of Southern Tropical dry deciduous type. Thick forest belt produces a major population of Dalbergia, Tectona, Terminalia, Rhynchosia species. The forest produce, which includes timber, fuel, bamboo and Diospyros leaves, yields good revenue. Mangoes and Custard apples grow well in the district.


Uses which are not mentioned in the literature are considered as uses less known in India and are marked by asterisks (*) in the present paper.

METHODODOLOGY
For documentation of ethno-botanical information and collection of plant material, several tours were undertaken during the period 2009- 2013. Data presented here is based on personal observations and interviews with traditional healers (Viz. medicine men, hakims and old aged people) and methodology used is based on the methods available in literature ¹Jain, 1989) and (Jain and Mudgal, 1999).

Ethnobotanical information about scorpion sting gathered was documented in datasheets prepared. For collection of plant material, local informer accompanied to authors.
Plant identification was done by using regional flora and flora of adjoining districts Pullaiah and Rao, 1995; Pullaiah et al., 1992; Singh and Karthikeyan, 2000; Singh et al., 2001 and Cooke, 1958.

**ENUMERATION:** The present ethno-botanical explorations conducted in forest area of Nizamabad resulted in the traditional plant uses in scorpion sting of 18 plant species belonging to 15 families. Following data includes botanical name of the species, vernacular name, family, plant part used, method of preparation of medicine and mode of administration and details about its application.

**RESULTS AND DISCUSSION**

The drug yielding plants was arranged in alphabetical order followed by botanical name, local name, family and use (Table 1). Our taxonomic analysis of crude drugs yielded 18 species belonging to 15 families used for scorpion sting

<table>
<thead>
<tr>
<th>Botanical Name</th>
<th>Family</th>
<th>Local Name</th>
<th>Use</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Abutilon indicum</em> (L.) Sweet</td>
<td>Malvaceae</td>
<td>Thuthura benda</td>
<td>*Leaf paste applied externally at the site of scorpion sting to relieve pain.</td>
</tr>
<tr>
<td><em>Acorus calamus</em> L.</td>
<td>Araceae</td>
<td>Vaja, Vasa</td>
<td>*Rhizome paste applied externally at the site of scorpion sting to relieve pain.</td>
</tr>
<tr>
<td><em>Anisomeles malabarica</em> R.Br.</td>
<td>Lamiaceae</td>
<td>Kartika tulasi</td>
<td>Leaf paste applied externally at the site of scorpion sting to relieve pain.</td>
</tr>
<tr>
<td><em>Cassia auriculata</em> L.</td>
<td>Caesalpiniaceae</td>
<td>Thangedu</td>
<td>Leaves extract applied externally at the side of scorpion sting to relieve pain.</td>
</tr>
<tr>
<td><em>Datura metel</em> L.</td>
<td>Solanaceae</td>
<td>Nalla ummetta</td>
<td>Leaf paste applied externally at the side of scorpion sting to relieve pain.</td>
</tr>
<tr>
<td><em>Digera muricata</em> (L.) Mart.</td>
<td>Amaranthaceae</td>
<td>Chenchela koora</td>
<td>*Leaf paste applied externally at the site of scorpion sting to relieve pain and also one tea cup leaf juice taken orally twice in a day only.</td>
</tr>
<tr>
<td><em>Enicostema axillare</em> (Lam.) Raynal</td>
<td>Gentianaceae</td>
<td>Nela gorimadu</td>
<td>*One tea cup extract of leaves taken orally, 3 doses are taken at the interval of one hour.</td>
</tr>
<tr>
<td><em>Glossostema superba</em> L.</td>
<td>Liliaceae</td>
<td>Adavi nabi</td>
<td>Root tuber paste applied externally over Scorpion sting to relieve pain.</td>
</tr>
<tr>
<td><em>Gymnema sylvestre</em> (Retz.) R. Br. ex Schultes</td>
<td>Asclepiadaceae</td>
<td>Podapatri</td>
<td>*One small glass juice of leaves taken orally and leaf paste applied externally at the site of scorpion sting to relieve pain.</td>
</tr>
<tr>
<td><em>Heliotropium indicum</em> L.</td>
<td>Boraginaceae</td>
<td>Telu mani</td>
<td>Leaf paste applied externally at the site of scorpion sting to relieve pain.</td>
</tr>
<tr>
<td><em>Mangifera indica</em> L.</td>
<td>Anacardiaceae</td>
<td>Mamidi chettu</td>
<td>Flowers extract applied externally at the side of scorpion sting to relieve pain.</td>
</tr>
<tr>
<td><em>Martynia annua</em> L.</td>
<td>Martyniaceae</td>
<td>Telukondi</td>
<td>* Fruit paste is prepared and applied over scorpion sting.</td>
</tr>
<tr>
<td><em>Oxalis corniculata</em> L.</td>
<td>Oxalidaceae</td>
<td>Pulichintha</td>
<td>*Whole plant paste applied externally at the site of scorpion sting to relieve pain.</td>
</tr>
<tr>
<td><em>Phyllanthus reticulatus</em> Poir.</td>
<td>Euphorbiaceae</td>
<td>Pulcharu</td>
<td>*Leaf paste applied externally at the site of scorpion sting to relieve pain.</td>
</tr>
<tr>
<td><em>Plumbago zeylanica</em> L.</td>
<td>Plumbaginaceae</td>
<td>Chitra mulamu</td>
<td>*Root extract applied externally at the site of scorpion sting to relieve pain.</td>
</tr>
<tr>
<td><em>Pupalia lappacea</em> (L.) A. L. Juss.</td>
<td>Amaranthaceae</td>
<td>Gandu uttarani</td>
<td>*Leaf extract applied externally at the side of scorpion sting to relieve pain.</td>
</tr>
<tr>
<td><em>Solanum nigrum</em> L.</td>
<td>Solanaceae</td>
<td>Nalla buddakashi</td>
<td>*Leaf paste applied on scorpion sting acts as pain reducer.</td>
</tr>
<tr>
<td><em>Solanum virginianum</em> L.</td>
<td>Solanaceae</td>
<td>Nala mulaka</td>
<td>*Paste of roots with red lime applied externally on sting point to relieve pain.</td>
</tr>
</tbody>
</table>
Among them 06 viz; Anisomeles malabarica, Cassia auriculata, Datura metel, Gloriosa superba, Heliotropium indicum and Mangifera indica had been previously reported for scorpion sting (Ambasta, 1992; Anonymous, 1948-1976; Asolkar et al., 1992; Chopra et al., 1956 & 1969; Jain, 1991; Jain, 1996; Jain, 1999; Kapur, 2001; Kirtikar & Basu, 1933 and Sharma & Singh, 2001. Information on the remaining 12 crude drugs was not found in the literature.

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