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## Antidotes Used For Scorpion Sting By The Tribals Of Siddeswaram Sacred Grooves Of Spsr Nellore DT.A.P.

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### Abstract:

*Herbal folklore medicine and the ethnobotany are important traditional knowledge of information available with tribes in Andhra Pradesh. Tribals are living in the forest areas are using locally available medicinal plants are treating their ailments. Vampalli toka is a tribal village with 20 houses holds living in a remote area of the forest of Siddeswaram sacred groove in Seetharamapuram mandal of SPSR Nellore district. There are no ethnopharmacological survey reports from Siddeswaram sacred grooves of SPSR Nellore district. A.P. In the present study an attempt is made to find out the various medicinal applications that are used by the Yanadi tribes for scorpion stings. Standard procedures are adopted for collecting information about the use of tribal medicine. In total 12 plants that are used for scorpion bite by the Yanadi tribes are described along with their medical significance and mode of administration.*

**Keywords:** Siddeswaram Sacred groove; Vempalli toka; Yanadi tribes; scorpion bite antidotes. Ethnopharmacology:

### Introduction:

Scorpions are generally found in dry, hot environments, although some species also occur in forest and deserts. All species are nocturnal, hiding during the day under stones, wood or tree barks. The risk of scorpion sting is higher in rural areas, but some species are found close contact with man, and live around or inside human dwelling. In India more than 90 species of scorpions are present. Among them 24 species are present Andhra Pradesh (Javed et al 2010). Out of them small red *Buthus tamulus* and the large black *Palamneus gravimanus* are highly toxic. Various medicinal plants are being used as folk medicines in the treatment of scorpion bite in tribal areas. There are no specific ethno botanical survey reports on the Siddeswaram sacred groove of SPSR Nellore district. Hence in the present study an attempt is made to study the herbs that are used for scorpion stings that are used by the Yanadi tribes of Siddeswaram sacred grooves of SPSR Nellore district.

## MATERIALS AND METHODS

### Location

Siddeswaram sacred groove is in Sitharamapuram mandal of SPSR Nellore district. Within this sacred groove Vampallitoka is a tribal village (Latitude: 17.608751, Longitude: 83.187155) with 20 houses holds living in a remote area of the forest. In the present study an attempt is made to find out the various medicinal applications that are used in the Yanadi tribes.

### Yanadis

Yanadis are the 'melanin black Indians,' a hunter gather tribe. Yanadis are the ethnic tribe inhabiting in the area in close proximity to forests and along the coast. Fishing, hunting, collection of honey, gums, root tubers, bulbs, leaves, flowers, fruits and seeds of different wild plants, knitting of baskets and mats and farming to some extent are the occupations of these tribal peoples. Vampalli toka of Siddeswaram sacred groove is inhabited by Yanadis. The ethno-medical data was prepared from house-wives, elders and herbal practitioners. Plant specimens were collected and identified with the help of Standard Local Flora and relevant literature.

### Results:

With much difficulty we could able to secure information regarding the use of 12 medicinal plants that are used by the Yanadi tribes of Vampalli toka of Sitharamapuram mandal Nellore District for scorpion sting. The data is presented in table.

**Table:** Antidotes used by the Yanadi tribes of Siddeswaram sacred grooves.

S.No.	Botanical Name	Local name	Family	Method of administering herbs
1	<i>Achyranthes aspera</i>	<i>Vuttareni</i>	Amaranthaceae	Ground fresh leaves put on bite site and applied thrice.
2	<i>Acorus calamus L</i>	<i>Vaja</i>	Acoraceae	Powder of dried rhizome, is applied on infected site.
3	<i>Calotropis procera W.</i>	<i>Jilledu</i>	Asclepiadaceae	Rubed fresh latex of leaves on bite site thrice a day.
4	<i>Eclipta prostrata (L.)</i>	<i>Podugugalkaara</i>	Asteraceae	Whole plant extract was given orally twice or thrice a day for 7 days.
5	<i>Eclipta alba (Linn.) Hassk.</i>	<i>Guntagalgara</i>	Asteraceae	The decoction of plants was considered as an excellent
6	<i>Mangifera indica</i>	<i>Mamaidi</i>	Anacardecae	Dried leaves were grounded to make powder. 1 tea spoon of this powder was used 2 to 3 times a day.
6	<i>Melia azedarachta Blanco</i>	<i>Turaka vepa</i>	Meliaceae	Poultice was made by grinding the plant parts. It is applied to neutralize the toxic
7	<i>Ricinus communis L.</i>	<i>Amudam</i>	Euphorbiaceae	Fresh leaves were mashed to obtain paste and used three times a day on wound.
8	<i>Terminalia arjuna (Roxb. ex DC.) Wight &amp; Arn</i>	<i>Maddi</i>	Combretaceae	Ash is obtained by burning aerial plant parts it is poured on bite site use it thrice a day
9	<i>Andrographis paniculata (Burm. f.)</i>	<i>Nela vemu</i>	Acanthaceae	Leaves are used as antidote or alexipharmic. Pills were made from leaves by local Yanadis applied to the
10	<i>Annona squamosa L.</i>	<i>Seeta palamu</i>	Annonaceae	Leaf paste is placed on the bite to get relief pain.
11	<i>Bacopa monnieri (L.)</i>	<i>Neerisambrania ku, Brahmi</i>	Scrophulariaceae	Whole Plant powder is given for nervous debility and as brain Tonic.
12	<i>Leucas aspera spreng</i>	<i>Tummi</i>	Lamiaceae	Leaf decoction was given orally for scorpion sting

In this survey more than 12herbs were used in treating envenomation of scorpion bite. They belong to 11 families. The application of leaves (58.3%) was preferred followed whole plant (16.6%) latex (8.33%),

rhizome (8.33%) and ash (8.33%) was also reported. It is a common observation that majority of these herbs are not having side effects unlike chemical antidotes. Further studies are needed to identify active ingredients in these herbs.

### Discussion:

Scorpion venom causes parasympathetic excitation, characterized by vomiting once or twice, profuse sweating), ice cold extremities, hyper salivation and thick mucus secretion due to stimulation of bronchial mucus glands, lacrimation, pin-point pupils, diarrhoea, abdominal distension, priapism, bradycardia and hypotension (Chippaux, and Goyffon 2008). Prolonged massive release of catecholamines, as in pheochromocytoma, later produces restlessness, piloerection, marked tachycardia, mydriasis, hyperglycemia, hypertension, toxic myocarditis, cardiac failure (Gueron and Yraon 1970) and pulmonary edema. Chemically, scorpion venom is a cocktail of several neurotoxins, cardiotoxins, nephrotoxins, hemolytic toxins, nucleotides, amino acids, oligopeptides, phospholipase-A, hyaluronidase, acetylcholine esterase, histamine, serotonin, 5-hydroxyptamine and proteins that inhibit protease, angiotensinase and succinate dehydrogenase.

Red scorpion venom is a potent sodium channel activator resulting in autonomic storm. This venom inhibits the calcium-dependent potassium channels. Clinical manifestations, such as vomiting, profuse sweating, priapism in male, cool extremities, hypertension, hypotension, bradycardia, tachycardia, ventricular premature contraction, transient runs of ventricular tachycardia, transient coronary sinus rhythm, pulmonary edema accompanied by marked tented T-waves, ST segment depression, acute myocardial infarction-like pattern, left bundle branch block, and prolongation of QTc interval (400-650 milliseconds). Clinical effects caused by venoms are due to the release of autopharmacological agents into the circulation (Bawaskar 2005).

The tribal people prefer herbal treatment for scorpion sting and snake bite (Bakhru, 1999, Kuna et al. 2013). There are few herbs which have magic and wonderful effects. Tribal people have deep faith on these mantras and herbal remedies than allopathic medicine.

### Conclusion:

Herbal medicine also referred to as alternate medicine/traditional medicine, has been in use in India since time immemorial in rural and tribal areas of Andhra Pradesh. For scorpion bite majority of villagers are dependent on plant-based medicines or Charmers (Manthravadi). In the present study twelve plants are identified which were used by the Yanadi tribes of Siddeswaram sacred groove.

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