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PHYTO-ANTIDOTES OF TUMKUR DISTRICT, KARNATAKA, INDIA

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Abstract

This paper deals with a brief account on ethno-botanical information obtained from the tribal communities of Tumkur district Karnataka state. The area being 10,599 km^2 in which the forest region comes under dry-belt zone. The communities of Hakkipikki, Budibudike. Jogi, kadugolla nayaka, and Lambani are settled and non-settled tribes in an isolated regions.The area under study has not been known systematically from the point view of an anti-venome properties of native plants.Apart from the tribal communities, the non-tribal communities have also fortified the tribal wisdom. The study has yielded 40 plant species known to possess anti-venome properties against snakes, rats, dogs, scorpion and insect bites/stings. Out of 40 plants, 30 are known to plant science as antidote plants. The other 7 plants are *Andrographis serpyllifolia* (Vahl.) Wt., *Canthium parviflorum* L. *Citrullus colocynthis* (L) Schrad. *Colius amboinicus*, Lour. *Croton bonplandianum* Baill,. *Dipterocanthus prostrstus* (Poir) Nees., and *Sterospermum colis*, (Buch-Ham,ex.Dillw) Mabbe. have been reported for the first time as phyto-antidotes and 3 are used for multipurpose. Phytochemical investigations with suitable clinical trials are needed to validate scientifically and to characterize the biologically active compounds. It is an attempt to bring to the limelight about the phyto-antidote plants of the tribal communities of Tumkur district. The gathered ethno-medicinal informations are presented here with an alphabetical order including botanical name, vernacular name, family, usage and method of administration with or without adjuvant and dosage.

***Key words*:** *Antivenome, Ethnobotany, Insects, Plants, Worms.*

1. Introduction

The medicinal plant-lore of tribal communities of Tumkur is much more interesting. The principal tribals of this area are Nayaka, Kadugolla, Lambani, Koracha/Korama, In addition to this some nomadic and semi nomadic communities like Hakkipikki, jogi, and budududike are also inhabited in our study area. The total population of Tumkur district tribals is 1,67,632 (excluding nomadic and seminomadic communities). Indeed Tumkur is a place where ethnobotanists gets inspiration for work. Studies on the medicinal plants of Tumkur district were initiated by Buchanon (1807). collected few plants from Tumkur, but no records exist of his collections. Rao and Shastry (1964). have enumerated 209 species belongs to 59 families from Devarayanadurga. Later Yoganarasimhan *et al*., (1982). reported 143 medicinal plants from the whole of Tumkur district. Singh (1988). reported 969 species in his Flora of Eastern Karnataka. Kushalappa (1996). has been reported that the district has 901 plant species of which 464 species were known for their medicinal values. Harish R (1998). reported 307 plants from Devarayanadurga, of which 167 plants were medicinal value. Thus there are only a few reports from the point view of ethnobotany of Tumkur district. The present survey is mainly focused on plants used against the bites of poisonous animals snakes and insects .From ancient times poisonous animal bites is a serious issue in world. Millions of peoples die every year because of poisonous animals' bites. Snake bite cases being the most common culprit. Snake bite is a major health hazard that leads to high mortality rate, especially in India. The common poisonous snakes found in India are Cobra (*Najas naja*), Krait (*Bangarus caeruleus*), Russel's viper (*Daboia russelli*) and Saw scaled wiper (*Echis carinatus*). Bawaskar (2004). The recent clinical trials of the Saw scaled wiper (Echis carinatus) anti venom in Nigeria have been successful, but this anti-venom can only be used against that particular snake. Anonymus (1997). Following this scorpion sting is also common and global public health problem associated with substantial mortality. It constitute an occupational hazard especially in the field of agriculture for farmers, farm labourers, villagers, migrating populations and hunters. The factors mainly responsible for high mortality associated with scorpion stings are poor health services, difficult transportation facilities, wrong traditional belief and delay in anti-scorpion venom administration. Satish (2012). It is estimated that in India the annual number of scorpion sting cases exceeds 1.23 million of which over 32,250 may be fatal. Chippaux and Goyffon (2008). The estimates are arbitrary as the majority of the cases may be unreported. In rural areas where most of the scorpion sting cases occurs, the victims are mostly taken to traditional healers who neither document the case nor report them to the authorities, hence paucity of reliable epidemiological data. Numerous envenomation cases remain unreported making it difficult for calculating true incidence case fatality rate of 3.22% were reported among the children hospitalized for scorpion sting in India, Saudi Arabia and South Africa. Mahadevan, *et al*., (1981). Traditional medicine is readily available in rural areas for the treatment of poisonous bites. Application of the plant or its sap or latex on to the bitten area, chewing leaves and barks or drinking of plant extracts or decoctions are some procedures to counteract venom activity. Thirumalai *et al*., (2010). Plants are used either single or in combination as antidote for snake envenomation by rural population in India and many parts of the world. Perumal *et al*., (2007). The use of plants as an alternative for the treatment of poisonous bites is an important in remote areas, where there is no accessibility to hospitals and storage facilities for anti venom. Over the years many attempts have been made for the development of snake venom antagonists especially from plant sources. The use of plants against the effects of snake bite has been long recognized,

more scientific were freshly dissolved or suspended in normal saline prior to administration. Khandelwal *et al*., (2006) Snake bites and scorpion stings are major health hazards that lead to high mortality and great suffering in victims. The monopoly of snake bite healers do not reveal their traditional secrets to people, partly due to their unknown materia medica and occult, mystical nature of their practice. Kunjam *et al.*, (2013). In India there are about 54 million indigenous people of different ethnic groups inhabiting various terrains. These indigenous groups possess their own distinct culture, religious rites, food habit and rich knowledge of traditional medicine. Even today indigenous and certain local communities practice herbal medicine to cure a variety of diseases with plants particularly used as folk medicine to treat snake bites. Chidambaram *et al*., (2011). Tribal's are still relying on the natural resources available in their surroundings to treat many diseases. One such treatment includes the usage of the herbals as an antidote for snake, scorpion and insects bites/stings. For treating the aforesaid ailments, they resort to age-old traditional methods which include chanting of "*mantras*" along with the administration of specific plant drugs. Hemambara *et.al*. (1996). and Karthikeyani and Janardhanan (2003).Plant constituents have been identified, which are used to neutralize the effect of snake venom.The way of management of snake bites through herbals are by treating with single herbal drugs or in combination of applications. Because of it designed to control infection, stop pain, improve symptoms, correct imbalance, adjust immune system and boost energy for better health and quality of life. Kuntal Das (2009). Clinical treatments often involves the use of polyvalent antivenins these have been many disadvantages such as needs to be kept at low temperature and an allergic reactions which occurs in some patients. In contrast to the difficulty of availability of this modern treatments in large areas of the developing world, many societies who live in such places use plants to treat snake bite. Such plants are recorded in texts dealing with the ethno pharmacology of geographical areas. But in most of the instances there is no information on the method of use of the plant or the type of snake whose venom is supposed to counteract Houghton and Osibogum (1993). Documentation of indigenous knowledge through ethnobotanical studies is important for the conservation and utilization of biological resources. Hiremath and Taranath (2010).

1.1 Study Area

Tumkur belongs to group of districts called plain (Maidan).The original name of the place according to certain inscriptions of the tenth century Tumkur once formed a part of territory, whose capital was Kridapura, now it is a small village known as kaidala, three miles to the south of Tumkur, and that it was protected by one of its rulers called herald or tom-tom beaters. Tumuke is the small drum or tabret which is used for tom-toming, and the town might have been called Tumuke-Ooru it indicate that it belongs to the beater of Tumuke. According another inscriptions of the tenth century was`Tummegooru.which means the place of the Tumme or Tumbe a common fragrant herb *Leucas aspera* found abundantly in this area known as Tumbe or Tumme the same name in addition with Ooru for the town and called it as Tumme-ooru or Tumbe-ooru, which in course of time came to be pronounced as Tumakuru or Tumkur in its anglicised form is now known.Tumkur district is bounded on north by Ananthapur district of Andhra Pradesh, east by Kolar and Bangalore district, on the south by the Mandya and Mysore districts and west by the districts of Chitradurga, Hassan and Chikkamagalore. It is located between the 12^0 45'\ and 14^0 20" north latitude and between 76^0 21" and 77^0 31" east longitude. The area of the district is extent over 10,550 sq km. **(Fig.1).** The total area of the state forest in the district is 865.17 sq km. The forest vegetation is sparse and mostly restricted to the hilly areas. It is land-locked district, the forest in this region is dry deciduous to thorny bushes and this is because of scanty rain fall (75 mm/annum). The forests are found in the lower slopes of hill ranges i.e. Devaryanadurga hills, hills around Koratagere ranges near Madhugiri, a historical monolithic hill, chain of hills to the west of Kibbanahalli, the region around Bukkapatna, the area near Huliyurdurga, area around Kudrekanive and Keepalpura. The forests are mostly open and consists of mixed species varying from drydeciduous to thorny bushes. The tree growth in dry belt zone never attain a height of more than 25 feet. The forest consist mostly of fuel trees, providing fuel throughout the year. The district is completely rain fed aerea, there is no perennial streams in the district**. (Plate.1).**

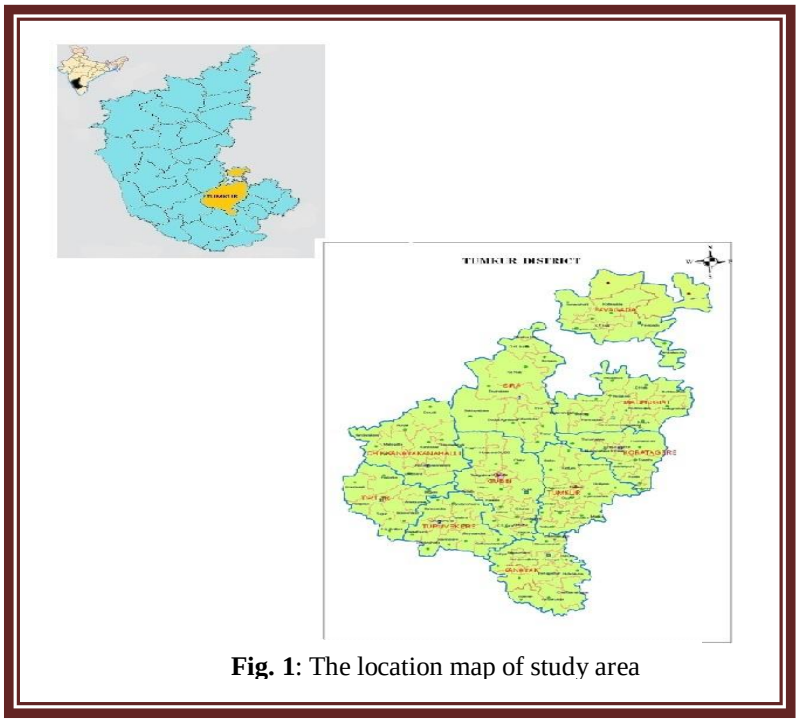


Fig. 1: The location map of study area

2. Materials and Methods

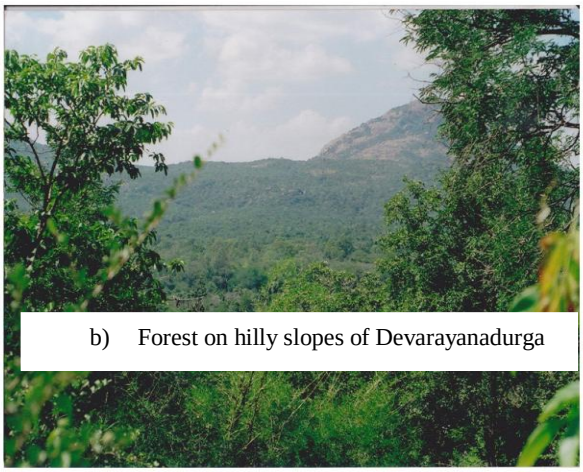
The field trip was conducted in different parts of the district during 2006-2007 and obtain ethno- botanical information from different tribal communities especially in professional vydyas and well experienced local people including women traditional healers also. Who in turn depends on forest plants for their needs. Naturally they have sound knowledge on plants curable properties, especially on poisonous bites/stings. The information was collected for each plant include local names are recorded in field note book and identified by using Flora of Presidency of Madras, Gamble (1936) and Flora of Tumkur District, Karnataka. (2013).The methodology followed by Jain (1989). for validation and authentication of information. Devarayanadurga and Siddarabetta hills are the part of Tumkur district are relatively unexplored and little work has been done in the context of ethnobotany. So the present study was undertaken to gather information of ethno botanical plants used by Nomadic semi-nomadic and settled tribal's of Tumkur district, for the various poisonous bites are recorded by the author during the field trip and documented. The collected plants were dried pressed and mounted on herbarium sheet, the prepared herbarium specimens are preserved in the Department of Botany, Bangalore University, Bangalore.

3. Results

The present study deals with the plants used in poisonous bites/stings in Tumkur District of Eastern Karnataka, India. The survey yielded 40 plant species of phyto-antidotes belongs to 40 genera and 29 families. Out of these 40 plants 15 plants are used as an antidote for snake bites, 11 plants for scorpion sting, 2 plants for snake repellents , 4 plants used for both snakebite and scorpion sting. The remaining 8 plants for multipurpose use in addition to bites of dog, rats, centipede and poisonous insects and worms. Root and leaves are the dominant source than the whole plant, stem bark, latex and gums. The identified Taxa with promising medicinal properties as told by the local tribes of Kadugolla, Lambani, Budududike and Koracha . **(Plate-2).** The collected Plants were identified and enumerated in alphabetical order and presented **(Appendix-I)** in the following manner include Botanical name with Family, Vernacular names, Parts used, Name of the ailment/ disease cured, mode of preparation and administration with adjuvant are mentioned in this paper.

Plate-1

a) Deciduous forest of Siddarabetta

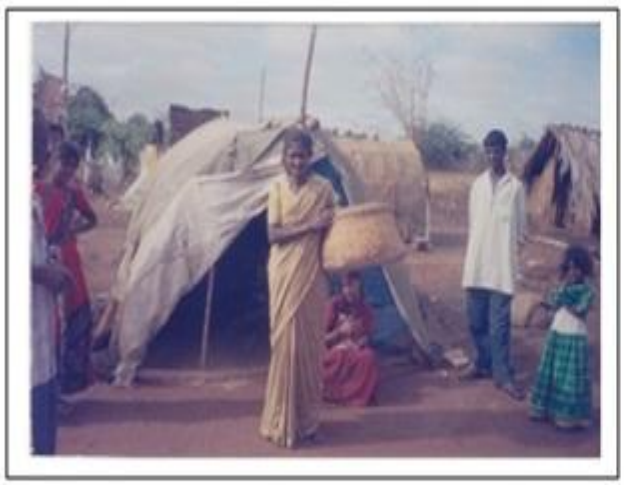


b) Forest on hilly slopes of Devarayanadurga

c) Scrub jungle of Pavagada taluk

d) Thorny forest in Sira taluk

Plate-2



A sooth sayer woman of Koracha (nomadic tribe)

A traditional woman of Lambani (settled tribe)

A traditional woman of Kadugolla (settled tribe)

A traditional man of Budududike (nomadic tribe)

3.1 ***Appendix-I***

Sl. No.	Botanical names with family	Vernacular names	Parts used	Name of the ailment or disease cured	Mode of preparation & administration with adjuvant.
1	*Achyranthes aspera, L.* (Amaranthaceae)	Uthrani	Root	Scorpion sting	The fresh root is pounded and the paste is applied externally over the stinging site(s) to alleviate burning sensation
2	*Alangium saulvifolium*, **(L.f).** Wang. (Alangiaceae**)**	Ankole	Roots/seeds	Dog/Snakebites	The shade dried root is pounded and mixed with children's urine to given orally for 1-2 times to vomit snake venom and relief. The seeds are powdered and is mixed with cow ghee is applied externally over the dog bitten sites for 10-15 days to cure rabies
3	*Albizia lebbeck*, (L). Willd. (Mimosaceae**)**	kattimara	Leaves	Scorpion sting	The fresh leaves are squeezed and the juice is applied externally over the sites to alleviate the burning sensation.
4	*Andrographis serpyllifolia*, (Vahl). Wt. (Acanthaceae)	Saradale gedde	Whole plant	Snake bite, Poisonous worms and insect bites	The whole plant is pounded and the paste is applied externally over the sites of poisonous worms/insect bites to alleviate burning sensation. The root paste is mixed with lemon juice to given orally for 7-8 days to ctlles to neutralize the snake venom.
5	*Anogeissus latifolia*, (DC). Bedd. (Combretaceae)		Gum	Scorpion sting	The gum oozes from the tree is rubbed with cow urine is applied externally over the sites to alleviate burning sensation and relief.
6	*Argemone Mexicana*, L. (Papaveraceae)	Datturi gida	Root	Scorpion sting	The fresh root is pounded and the paste is applied externally over the stinging sites to alleviate burning sensation and reduce swelling due to sting.
7	*Aristolochia bracteata*, Retz. (Aristolochiaceae)	Katte kirubanagi da	Leaves	Snake bite	The leaves are pounded with 1-2 dry chillies to prepare a small pills each pill rubbed with 10 ml of goat milk and applied over the external eye lids to opens victims mouth for oral administration to vomit snake venom and relief.
8	*Aristolochia indica*, L (Aristolochiaceae)	Eswari balli	Root	Snake bite	The fresh/dried root is pounded with children's urine, the crude extract is given orally for 1-2 times to neutralizing snake venom.
9	Boerhaavia diffusa, L. (Nyctaginaceae)	Balavdike soppu.	Root	Scorpion sting/ Rat bite	The fresh root is pounded and the paste is applied externally over the rat bitten area to reduce swelling and heal up the wound and alleviate burning sensation due to scorpion sting and relief.
10	*Butea monosperma*, (Lamk). Taub. (Fabaceae)	Muttuga	Stem bark/Gum	Snakebite/Scorpion sting.	The stem bark is pounded and mixed with 20 ml of goat milk to given orally for 1-2 times/day to vomit snake venom and relief. The gum oozes from the tree is ground with onion bulb, the paste is applied externally over the stinging site to alleviate burning sensation and relief.
11	*Canthium parviflorum*, Lamb. (Rubiaceae)	Khare	Root	Snake bite	The fresh root is pounded and mixed with children's urine, the crude extract is given orally for 1-2 times/day to vomit snake venom and relief.
12	*Celastrus paniculatus*, Willd. (Celastraceae)	Jyotishmati	Stem bark	Scorpion sting /Snake bite	The stem bark is shade dried and powdered is mixed with lemon juice to given orally for 1-2 times/ days to neutralize snake venom. The paste is applied externally over the

					sites of scorpion sting alleviate burning sensation and relief.
13	*Cissampelos pareira*, L. (Menispermaceae)	Patha/ Parera beru	Root	Scorpion sting/snakebite.	The fresh root paste is applied externally over the sites of scorpion sting to alleviate burning sensation and relief. The same paste is given orally with lemon juice/goat milk to neutralize the snake venom and relief.
14	*Citrullus colocynthis* (Cucurbitaceae)	Havumekke kayi	Root	Snake bite	The fresh root is shade dried and powdered is given orally with goat milk in small quantity to vomit snake venom and relief.
15	*Clerodendron inerme*, (L). Gaertn. (Verbenaceae)	Vishamadari	Root	Snake bite	The fresh root paste is given orally with goat milk for 1-2 times /day to vomit snake venom and relief. The same paste is also applied externally over the snake bitten sites to heal up wound.
16	*Clematis gouriana*, Roxb. Ex. DC. (Ranunculaceae)	Arke beru	Root	Snake bite	The fresh root is shade dried and powdered is given orally with lemon juice for 2-3 times/day to vomit snake venom and relief.
17	*Cocculus hirsutus*, (L). Diels. (Menispermaceae)	Dagadi balli	Root	Snake bite	The fresh root is pounded and mixed with goat milk, the crude extract is given orally for 3-4 times/day to neutralize snake venom and relief.
18	*Coleus amboinicus*, Lour. (Lamiaceae)	Doddapathre	Leaves	Centipede bite/Honey bee sting	The squieezed leaf juice is applied externally over the sites to alleviate burning sensation and relief.
19	*Corallocarpus epigaeus*, (R&W). Hook.f. (Cucurbitaceae)	Ginimooth beru	Root tuber	Snake bite	The fresh root tuber is pounded and the paste is mixed with children's urine is given orally for 3-4 times/day to vomit or neutralize the snake venom.
20	*Croton bonplandianum*, Bail. (Euphorbiaceae)	Seeme gida	Latex	Scorpion sting	The latex is applied externally over the sites to alleviate burning sensation and relief.
21	*Curculigo orchioides*, Gaertn. (Hypoxidaceae)	Nelathengu	Root	Scorpion sting	The crushed root is applied externally over the sites to alleviate burning sensation and relief.
22	*Datura metel*. L (Solanaceae)	Visha ummathi	Root/Seeds	Scorpion sting/Dog bite.	The fresh root is pounded with water and a small dose of the squieezed juice is given orally to alleviate burning sensation due to scorpion sting. The seeds are finely powdered and is mixed with caster oil, the paste is applied externally over the dog bitten sites to prevent rabies attack.
23	*Dioscoria pentaphylla*, L. (Dioscoriaceae)	Kadu genasu	Root tuber	Poisonous worms/insect bites	The fresh tuberous root is made into paste is applied externally over the sites to alleviate burning sensation due to poisonous worms or insect bites.
24	*Dipterocanthus prostrates*,(Poir). Nees. (Acanthaceae)		Whole plant	Snake bite	The whole plant is pounded with lemon juice to prepare cubes are shade dried. The small cube is rubbed with lemon juice to given orally for 1-2 times /day to vomit snake venom and relief.
25	*Gloriosa superb*, L. (Liliaceae)	Karadikannina gida	Root tuber	Snake bite/Scorpion sting	The root tuber is shade dried and powdered is mixed with lemon juice is given orally in small dose to vomit snake venom and relief. The fresh tuber is crushed and the paste is applied externally over the sites of scorpion sting to alleviate burning sensation.

26	*Gmelina arborea*, Roxb. (Verbenaceae)	Shivani mara	Bark	Insect bite	The fresh crushed bark is applied externally over the sites of the insect bite to reduce swelling and alleviate burning sensation.
27	*Jasminum multiflorum*, (Burm.f.). Andr. (Oleaceae)	Kadu mallige	Root	Snake bite	The root is pounded and mixed with children's urine. The crude extract is given orally for 2-3 times /day to vomit snake venom and relief.
28	*Martynia annua*, L. (pedaliaceae)	Chelukondi gida	Leaves	Scorpion sting	The fresh leaves are squeezed and the juice is applied externally over the sites to alleviate burning sensation due to scorpion sting and relief.
29	*Mimosa pudica*, L. (Mimosaceae)	Muttidare muni	Whole plant	Snake bite	The plant is pounded with lemon juice is given orally for 2-3 times/ day to neutralize the snake venom and relief.
30	*Peristrophe bicalyculata*, (Retz). Nees. (Acanthaceae)	Cheebera soppu.	Leaves/stem	Scorpion sting	The fresh leaves/stem is made into paste is applied externally over the sites to alleviate burning sensation and relief.
31	*Ruta graveolens*, L. (Rutaceae)	Melekalina gida	Whole plant	Snake bite/snake repellant	The whole plant is pounded and the paste is mixed with children's urine is given orally for 1-2 times /day to neutralize/vomit snake venom and relief. The plant is cultivated as an hedge plant to avoid the entry of the snakes into the house.
32	*Sansevieria roxburghiana*, (Schult & Schult. F.) (Liliaceae)	Manjinnaru	Leraves	Snake repellant/rat bite	The plant is Cultivated as an hedge plant to avoid the entry of snakes into the house. The fresh root is crushed and applied externally over the wound caused by rat bite
33	*Sesbania grandiflora*,(L). Pers. (Fabaceae)	Agase mara	Root	Centepede/ Scorpion sting	The root paste is applied externally over the sites to alleviate burning sensation due to centipede and scorpion sting.
34	*Stereospermum colais*, (Buch & Ham). (Bignoniaceae)	Lingadhare mara/ Kaaladri mara	Leaves	Scorpion sting	The leaves are made into paste is applied externally over the sites of scorpion sting to alleviate burning sensation and relief.
35	*Strychnus nuxvomica*, L. (Loganiaceae)	Vishamusti	Stem bark	Snakebite	A small piece of fresh bark is chewed to neutralize snake venom. The excess chewing of this is fatal to human health.
36	*Strychnos potatorum*, L. (Loganiaceae)	Nagamusti	Seeds	Scorpion sting	The seeds are made into paste by using castor oil is applied externally over the sites to alleviate burning sensation and relief. Sai Prasad,G & Pullaiah, T. (1996).
37	*Tinospiora cordifolia*, L. (Menispermaceae)	Amrutha balli	Whole plant	Snake bite	The whole plant is pounded and the fresh juice is given orally for 2-3 times/day to neutralize snake venom and relief.
38	*Trichodesma zeylanica*, (Burm.f). R.Br. (Boraginaceae)	Kattetumbe gida	Leaves	Snake bite	The fresh leaves are pounded and the paste is applied externally and the same juice is mixed with butter milk to given orally for 5-6 days to neutralize the snake venom and relief in cattles.
39	*Vicoa indica*,(Willd). (Asteraceae)		Whole plant	Scorpion sting	The whole plant is pounded and the paste is applied externally over the sites to alleviate burning sensation and relief.
40	*Withania somnifera*,L. (Solanaceae)	Ashwagand	Root	Snake bite	The root is made into paste is mixed with cow urine is given orally for 2-3 times/day to neutralize snake venom or some time vomit the snake venom and relief.

4. Discussion

It is obvious in the survey of traditional phyto-therapy of Tumkur tribal communities have stanch belief in the ethno medicine. In case of insects, wasps, scorpion, poisonous worms, centipedes, lizards and snake bites, it may be possible that the species are poisonous or non-poisonous. Among snakes there is a blister or immediate swelling on the bitten spot is treated as non-poisonous, while one or two fang marks on the spot is treated as poisonous snakes especially it is cobra, viper and krait etc. It is estimated that the annual snakebite mortality in India is about 25,000 and a significant portion of this is due to cobra. Which is found in most of the forests. Taking a clue from the ancient text the scientists found that the root extracts of *Mimosa pudica*, L. is capable of neutralizing the toxic enzyme of the venom. Anonymus (2002). Anti-venom immunotherapy is the only specific treatment against snake venom envenomation. There are various side effects of anti-venom such as anti phyla tic shock, pyrogen reaction and serum sickness. Most of these symptoms may be due to the action of high concentration of non-immunoglobulin protein present in commercially available hyper immune anti venom. Maya Devi *et al*,. (2002).Here it may be noted that the suffering person refuses to take any kind of food. When bitten by scorpion/snakes. They refuse to take meals for 8-24 hours. It was also obvious in case of snake bite that they take excess bath with water, other people's helps in his bath. When the suffering person feels extremely cold after bath, then it is assumed that he is cured. Kaushal Kumar *et al*,. (1998). Tribals are still using the natural resources available in their surroundings to treat many diseases and occidental derangements. They believe in *Mantras* and *Tantrums* also. In view of the snake bites they are using the old traditional treatments, i.e by *mantras* along with the administration of particular plant drugs. Khaleel Basha *et al*,. (2012). The tribal's believe and use butter milk, goat milk, cow urine, children's urine, castre oil, lemon juice, are the most effective adjuvant used in this study. *Aristolochia indica*, *Tinospora cordifolia*, has been described to be used as a popular medicinal herbs by different tribals against snake bite and also reported in Ayurveda system of medicine. *Sensevieria roxburghiana* and *Ruta graveolens* are used as an antidote as well as keeping away the snakes, still they were practiced to grow in their back yards. *Andrographis serpyllifolia Trichodesma zeylanica*, and *Dipterocanthus prostratus* has been reported to be used as an antidote for snakebites in livestock as well as in humen beings. *Achyranthes aspera* and *Aristolochia indica* to cure various poisonous bites Thangudurai (1998). The same report was obtained from the yanadis of Nallamalai Hills of Andrapradesh. Hemambara *et al*,. (1996). In Alangium salvifolium root bark is used as an antidote for several poisonous and snake bites. it contain an alkaloid called Alangine. Harish (1998). In snake bites the poisonous effect is so severe that it may lead to paralysis of motor mechanism in the body leads to breathing problem. Anonymus (2004).

5. Conclusion

Plants are the major source of raw materials used against several ailments from time immemorial. But in recent years traditional folk medicines are receiving great importance in the primary health care sectors in entire world. Each and every tribal/ local communities has its own system of traditional medicine and they utilize natural resources around their habitats for various medicinal purposes. In India large sections of the rural population living far away from the urban area, lack of primary health care centers, transportation facilities, poverty and illiteracy, they were much dependent on commonly available medicinal plants for their dialy needs. Besides this, medicinal plants are easily available natural resources with negligible or no side effects. Bawaskar (2004). Roots are more effective than aerial parts of a plant. The size of the root is also very important, i.e. thicker the size is the superior quality of the medicine. In latex the density is more important for its better quality of the medicine. Maiti and Mishra (2000). These plants are also low cost and easy preparation and administration with adjuvant. Plant extracts represents an extremely rich source of pharmacologically active compounds and possess more than one biochemical or pharmacological property. Interaction of such compounds with the toxins or enzymes leads to the neutralization or inhibition of their activities. Inder Kumar and Devang Khamar (2010). Although many plants may not neutralize the snake venom itself but may be used to treat snakebite because they alleviate some of the symptoms like fear and panic to produce tranquilizing compounds. For instance *Rauwolfia serpentine* it contain tranquilizing alkaloid Reserpine. It is also made to known that the traditional healers are dwindling in numbers, the younger generation is not interested to carry on this tradition of folk lore remedies. Hence there is a great danger of disappearance of traditional knowledge, therefore it becomes the responsibility of the scientific community to unravel the information and documents the folk lore remedies for availability to the whole world for the benefit of human beings. Prabhu and Kumuthakalavalli (2012). Due to technical advancement and change in life styles, traditional knowledge in the tribal societies is disappearing rapidly. Rajan and Sethuraman (1992). The immediate concern is to preserve this knowledge from the older generation to the younger generation, because once the chain of information is broken,it is practically impossible to replace. Cox and Balick (1994). Phyto chemical investigations with suitable clinical trials are required to validate scientifically and obtain biological active compounds against snakes, scorpion, insects, wasps and dog bites/stings. It is also an attempt to limelight the properties of medicinal plants and secrets of tribals hidden knowledge.

6. Acknowledgement

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