Available online on 15.05.2019 at http://jddtonline.info

Journal of Drug Delivery and Therapeutics

Open Access to Pharmaceutical and Medical Research

Open Access Research Article

Ethno Veterinary Medicinal Plants and Practices in Honnavar Taluk, North Kanara District of Karnataka.

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ABSTRACT

Ethno veterinary practices in the Western Ghats region of Honnavar in North Kanara district are being documented. Field exploration was undertaken to record the plant diversity associated with such practices. Altogether 21 plant species belonging to 20 families were recorded and different parts of plant such as bark, root, leaf, fruit and entire plant have been used.

Keywords: Ethno veterinary, Traditional healers, Western Ghats, Livestock.

Article Info: Received 26 March 2019; Review Completed 28 April 2019; Accepted 30 April 2019; Available online 15 May 2019

Cite this article as:

Guruprasad NM, Devi Prasad AG, Ethno Veterinary Medicinal Plants and Practices in Honnavar Taluk, North Kanara District of Karnataka., Journal of Drug Delivery and Therapeutics. 2019; 9(3):117-120

http://dx.doi.org/10.22270/jddt.v9i3.2833

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INTRODUCTION

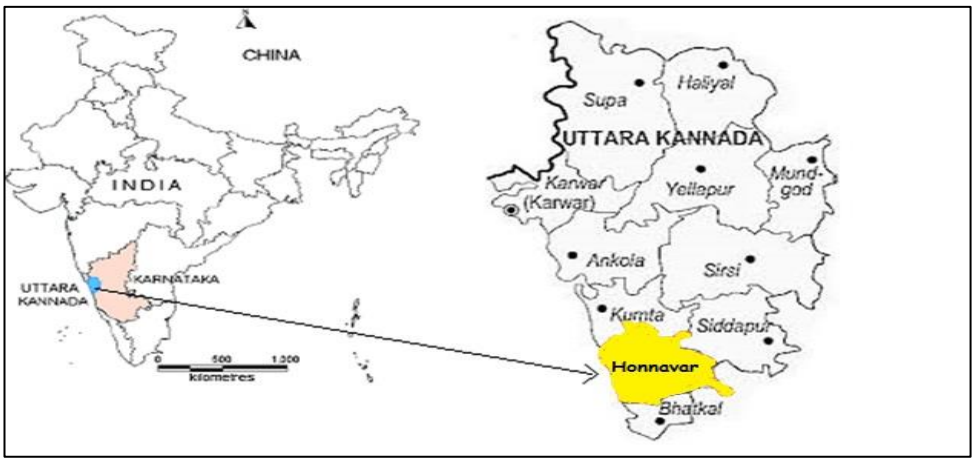
Livestock is one of the important components of Indian economy and therefore, their health perspectives are equally important. Plant medicines were used by the tribes or local people in many rural areas for curing the diseases of cattle and other domestic animals. Traditional medicine has been bonded to people and animal health planning for centuries and it has undergone a major revival for generations [1]. Traditional folk veterinary medicine is the integration of the local knowledge, related skills and custom procedures created by people for the purpose of preserving health and welfare of working and productive animals [2]. Livestock provides a wide range of products and services including animal power and supplementary nutrition. India is an agricultural country and roughly 80% of the population is dependent on agriculture and livestock. Substantial number of people lives in rural areas with minimum land holdings are still depends on their bullocks or buffaloes for agricultural practices. Domestic animals are being treated for various ailments with century-old herbal medicines in many Indian villages. The high cost of pharmaceutical products and lack of access to veterinary services are significant reasons for farmers to use non-conventional medicines [3].

Ethno veterinary medicine provides traditional medicines, which are locally available and usually cheaper than standard treatments. Livestock holders can prepare and use homemade remedies with minimum expense. So far, many livestock holders in rural areas where there are relatively few veterinarians and shortages of other facilities, traditional medicinal plants are the only choice to treat many aliment [4]. The present study is intended to document the traditional knowledge and popular ethno veterinary practices of Honnavar taluk in North Kanara district of Karnataka.

MATERIALS AND METHODS

The present study was undertaken in the Western Ghats region of Honnavar taluk in North Kanara district for different ethno veterinary medicinal plants used in the treatment of domestic animals like cattle, fowl and pets. The study area Honnavar taluk is located in North Kanara district of Karnataka (Map-1). It lies between North latitude 14° 17' and East longitude 74° 27'. It lies at an altitude of 2 M above mean sea level. The mean maximum and minimum temperature were 22°C and 33°C.

Field survey was undertaken in different bioregions of Western Ghats region of Honnavar. The study was focused on collection, identification and information regarding the ethno veterinary medicinal plants. Efforts were made to document and to obtain the information on ethno veterinary practices by meeting and interacting with experienced rural folk, traditional healers and livestock owners. The main tribal group popularly known as “Haalakki” tribes was also interviewed to gather the information on prevailing ethno veterinary practices. The plants used in ethno veterinary practices were collected and identified using standard flora and available literature.



Map-1: Study area Honnavar taluk

RESULTS AND DISCUSSION

The list of these plants was depicted in the form of table detailing their botanical names, family, vernacular names in Kannada, habit, parts used and mode of administration (Table -1).

About 21 plant species belonging to 20 families were recorded in the study area. The ethno veterinary practices carried out in Honnavar is mainly aimed at curing the diseases of livestock such as tonsil, fractures, fever, loss of appetite, wounds, Rinderpest disease, dengue, asthma, piles, to increase the lactation, for removal of placenta after delivery.

Our studies have revealed that various parts of plants such as bark, leaf, fruit, root and the whole plant are being used for the treatment of livestock. The affordable cost and almost no side effects of these traditional preparations with common ingredients make them adaptable by the local community. It is observed that method of preparation and dose of the remedies were uncommon. It is mostly believed that dose is depends on severity of diseases ad availability of ingredients/plants used for treatment. Therefore, well planned experimental and clinical evaluation of these practices is inevitable for proper scientific validation along with the authentic record and proper documentation [4]. The present study offers scope for further scientific research as well as for the conservation of those species in the Western Ghats hotspot region.

Table 1: Ethno veterinary medicinal plants and practices of the study area

S.N.	Name of The Plant	Family	Local Name	Habit	Parts Used	Formulations
1.	*Machilus macrantha* Nees.	Lauraceae	Gulmaavu.	Tree	Bark	Bark of the tree is mixed with the bark juice of *Litsea glutinosa* (Lour.) C.B.Rob. is used as plaster for fractures in cows.
2.	*Myristica fragrans* Houtt.	Myricaceae	Jaayikaayi.	Tree	Seed	Seed is made as paste with fruits of *Piper nigrum* L. and is used to make plaster for bone fracture.
3.	*Vitex negundo* L.	Verbenaceae	Nukki.	Tree	Leaf	Leaves are grinded with home lizard and leaves of *Leucas aspera* (Willd.) and urine of human is used as plaster for bone displacement.
4.	*Annona squamosa* L.	Annonaceae	Seethaphala.	Tree	Bark	Paste is made with Fennel seeds, garlic and *Myristica fragrans* Houtt. and introduced in nose for dengue fever in cattle.
5.	*Ervantamia heyneana* Wall. ex T. Cooke	Apocynaceae	Maddarasa.	Tree	Root Bark	Root is tied to the neck of the cows for worms. is fried and made as powder is used for wounds in dogs and cattle.
6.	*Justicia adhatoda* L.	Acanthaceae	Aadusoge.	Shrub	Leaf	Leaves are fried with jaggery and given for dysentery in cows. Leaves are crushed and juice is given for asthma in cows.
7.	*Mimosa pudica* L.	Fabaceae	Naachike mullu.	Herb	Leaf	Decoction is made with leaves is given for piles in cows. Leaves are crushed and applied for piles.
8.	*Celastrus punctatus* Thunb	Celastraceae	Gangammana balli.	Liana	Root	Root is made as paste and applied on the tongue for 4 days for hair loss in cows.

9.	*Litsea glutinosa* (Lour.) C.B.Rob.	Lauraceae	maalegandha.	Tree	Bark	Bark is grinded and paste is applied for bone fractures in cows. Same is given to eat. Bark is crushed and made paste with spices and used as plaster for bone fracture in cows.
10.	*Zanthoxylum rhetsa* (Roxb.) DC.	Rutaceae	Jumman kaalu.	Tree	Fruit	Fruit is made as paste with *Zingiber officinale* Roscoe and applied on tongue for 2 days to treat fever in cows.
11.	*Abrus precatorius* L.	Fabaceae	Gulganji.	Climber	Seed	Seed is mixed with coconut oil and given for drink to treat for loss of appetite in cows.
12.	*Pothos scandens* Linne	Araceae	Akkaballi.	Climber	Whole plant	Plant is given to eat for increasing the lactation in cows.
13.	*Solanum trilobatum* L.	Solanaceae	Mullu badane.	Herb	Leaf	Leaves are grinded with fruits of *Piper nigrum* L. is applied on throat for tonsils in cows.
14.	*Calycopteris floribunda* (Roxb.) Lam. ex Poir	Combretaceae	Kukkarasa	Shrub	Leaf	Leaves are given as food for constipation in cows.
15.	*Moringa oleifera* Lam.	Moringaceae	Nugge kaayi	Tree	Bark	Bark is crushed with onion, fennel seeds, Mace of *Myristica fragrans* Houtt., *Zinger officinale* Roscoe, and garlic and this juice is poured in nose for fever in cattle.
16.	*Cocos nucifera* L.	Arecaceae	Tengu.	Tree	Young fruit	Decoction is made with fruit, *Cuminum cyminum* L, mustard, garlic and onion is given for fever in cattle.
17.	*Antidesma acidum* Retz.	Euphorbaceae	Kolmaddu.	Tree	Bark	Juice of bark is given as tonic for cows.
18.	*Mangifera indica* L.	Anacardiaceae	Maavu.	Tree	Bark	Bark is crushed with turmeric and seeds of *Myristica fragrans* Houtt. is applied for wound for fowl.
19.	*Alseodaphne semecapifolia* Nees	Lauraceae	Marsya.	Tree	Bark	Bark is crushed in buttermilk and given for Rinderpest disease.
20.	*Bambusa vulgaris* Schrad. *ex* J.C.Wendl.	Poaceae	Bidiru.	Tree	Leaf	Leaves are given for removal of placenta after delivery in cattle.
21.	*Musa paradisiaca* L.	Musaceae	Baale.	Tree	Leaf	Young leaves are given to reduce heat in cattle.

Ethno veterinary medicinal plants of the study area

***Antidesma acidum* (Kolmaddu)**

***Celastrus punctatus* (Gangammana balli)**

***Ervantamia heyneana*(Maddarasa)**

***Justicia adhatoda*(Adusoge)**

Ethno veterinary medicinal plants of the study area

***Calycopteris floribunda* (Kukkarasa)**

***Litsea glutinosa* (Maalegandha)**

***Myristica fragrans* (Jaayikaayi)**

***Pothos scandens*(Akkaballi)**

ACKNOWLEDGEMENT

The authors are thankful to Mr. Sharath V G, DOS in Environmental Science, Manasa Gangotri, Mysuru for his immense help during this work.

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