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Use of animal and animal derived products as medicines by the inhabitants of villages in Athani Taluka of Belagavi District (Karnataka)

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Abstract

The present study describes the traditional methods of treating various kinds of ailments using different animals and their products as medicines by the inhabitants of villages surrounding Athani (Mole, Kokatnur, Madihal, Ugar) which includes certain tribal people like Hande Kuruba, Jenu kuruba, Huttupade Kuruba, and rural people etc. The traditional knowledge is mostly based on domestic animals but some protected species like Peacock (*Pavo cristatus*), are also included. Our suggestion is such kind of neglected knowledge should be included in conservation and management of faunistic resources. The present study describes the traditional knowledge related to the use of different animals and animal derived products as medicines in and around different parts of Athani taluka of Karnataka by certain tribal people like Hande Kuruba, Jenu kuruba, & rural people etc. We would suggest that this kind of neglected traditional knowledge should be included into the strategies of conservation and management of faunistic resources. A lot of work has been done on medicinal plants, plant products and such knowledge when it comes to animal products thus there is an urgent need to make such study in field of Zootherapy and document it, so that it can be put to the welfare of human kind. Keeping this aspect in view we have undertaken this study. Further studies are required for experimental validation to confirm the presence of bioactive components in these traditional remedies and also to emphasize more sustainable use of these resources.

Keywords: animal and animal, medicines, inhabitants, Belagavi, Karnataka

1. Introduction

In India, since times immemorial, great work was done in this field and documented in words like *Ayurveda* and *charaka Samhita*, nearly 15-20 percent of the Ayurvedic medicine is based on animal-derived substances. The Hindu religion has used five products (milk, urine, dung, curd and ghee) of the cow for purification since ancient times. Different ethnic groups use animal-derived substances for healing human ailments in present times in India. The healing of human ailments by using therapeutics based on medicines obtained from animals or ultimately derived from them is known as zoo therapy. In modern society, zoo therapy constitutes an important alternative among many other known therapies practiced worldwide. Research interest and activities in the areas of Ethnobiology and ethnomedicine have increased tremendously in the last decade. Since the inception of the disciplines, scientific research in Ethnobiology and ethnomedicine has made important contributions to understanding traditional subsistence and medical knowledge and practice. Since ancient time animals, their parts and their products have constituted part of the inventory of medicinal substances used in various cultures. This phenomenon is marked by both a broad geographical distribution and very deep historical origins. In Pakistan 31 substances were listed (animal parts and products), constituting 9% of all the medicinal substances in the inventory of traditional medicines. A survey of traditional materia medica in use in the markets of Israel recorded 20 substances of animal origin. Gupta *et al.* describe the traditional knowledge of local communities in district Kachchh and listed about 34 animals and bird species, which are used in primary health care of human beings and livestock. The Chakhesang tribe of Nagaland also uses twelve mammals, one bird, one reptile, two amphibians, one fish, one mollusk, one annelid and four arthropods for treatment of various

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various ailments. Traditional Knowledge on zoo therapeutic uses by the Saharia tribe of Rajasthan, India, J Eth. S.K. Sharma describes use of birds and animals to cure ailments of human beings and domestic cattle by Bhil tribe of Rajasthan. Jamir and Lal describe the traditional method of treating various kinds of ailments using twenty six animal species and their products by different Naga tribes. Patil found that the tribals of Nandurbar district (Maharashtra) have been use wild animal parts as medicines along with plants. Ghosh and Maiti identified 20 species of mammals have been proved as vital sources of tribal medicine. Dutta *et al.* studied use of certain animals and their product in medical treatment by tribal people in Assam. Additionally immense knowledge has come down to modern times through folklore as various practices became a part of tradition amongst various groups. We can find that in our rural people still use various animal products and by-products for cure of various diseases. For example, cattle urine has been used as a therapeutic. All this knowledge has once again come to the limelight, as there has been a sort of disillusionment with the current allopathic cure, as it has got its own side effect and in fact has no cure for various diseases. Therefore people are looking for traditional remedies for the treatment of ailments. But in India this

traditional knowledge is fast eroding due to modernization. Thus there is an urgent need to inventories and record all Ethnobiological information among the different ethnic communities before the traditional cultures are completely lost.

This paper deals with the zoo therapeutic aspects of the tribes like jenu kuruba, hande kuruba, and local people of Athani and surrounding villages to narrow the gap of our knowledge in this field.

A list of 26 species and their products, nature of ailments and mode of treatment has been presented.

A field survey was conducted during 2007-2008 to explore, collect, identify the wild & domesticated animals used by tribals as food and medicine. The data was collected through questionnaire survey. The selected respondents provided information regarding use of animals & their products in folk medicine. A total of 30 animal species were recorded and they are used for different medical purposes including cough, paralysis, piles, earache, Herpes, joint pains etc. The Zootherapeutic knowledge was mostly based on domestic animals but some protected species like Peacock are also included as medical resources.

2. Study area: Athani taluk



Fig: Athani Taluk Map

Athani is located in north Karnataka 16.72°N 75.06°E, and posses a semi arid plain region. The population is about 80000. Main occupatin is agriculture. The climate is dry with hot summer temperature ranging between 20-40c, with average rainfall of 20-40mm. The present study was conducted in the villages surrounding Athani. The information was collected from the medicine men (vaidyas) and members of their family, rural people.

3. Methodology

Data were obtained through field survey conducted from 2007-2008 by performing interview through structured questionnaire with selected people (informants) to collect information about traditional knowledge regarding use of animals & their products. These informants were local

herbalists, healers, farmers & medicine men. The informants are between 30-70 age group's. The selection of information was based on their recognition as experts and knowledgeable members concerning folk medicine. We questioned the informants whether they use animals in healing practices. Then we questioned that which animal remedies have been prescribed for which ailment. We also ask the modes of preparation of remedies & how the medicine can be therapeutically efficient in terms of right ingredients and the proper dose. According to them, their knowledge of folk medicine was acquired through parental heritage or they have experience about medicinal value of animals to heal their kin or themselves. The scientific name and species of animals were identified by using relevant and standard literature, local people, and indigenous doctors.

Class---Reptiles**Table 1:**

Sl no.	Common name	Scientific Name	Parts used	Aliments
1	Lizard	<i>Hemi dactylus</i>	Excreta	Applied for scorpion bite within 10 min poison decreases.
2	Viper	Russels viper or pit viper	After death, remove all the intestinal parts the skin should be placed in salt solution	Prevents back pain
3	Snake	Or-phidia	Moult+ 1gm Castor oil+2gm mustard seeds make paste, apply for one year	Herpes and skin diseases.
4	Monitor lizard	<i>Varanus</i>	Blood	Prevents Back pain

Class---Aves**Table 2:**

Sl no.	Common name	Scientific Name	Parts used	Aliments
1	Pigeon	<i>C.livia</i>	Flesh	Renal calculi
2	Pigeon	<i>C.livia</i>	Blood	Paralysis
3	Partridge(titer)	Partridge(titer)	Blood+ Jaggery	Prevents blood clotting, and also for Paralysis.
4	Peacock	<i>Pavo Cristatus</i>	Blood intake	Increases memory
5	Peacock	<i>Pavo Cristatus</i>	Feather ash +honey	Cough
6	Hen	<i>Gallus gallus</i>	Indigenous hen+200gm milk+5gm turmeric apply daily morning for 21 days	Relives Chest pain
7	Sparrow	<i>P.domesticus</i>	Excreta	Applied on the external wound on nose

Class---Mammalia**Table 3:**

Sl no.	Common name	Scientific Name	Parts used	Aliments
1	Squirrel(Three stripped)	<i>Funambulus palmarum</i>	Blood is taken internally	Whooping cough
2	Mouse	<i>M. muscus</i>	Excreta make paste with water and apply on naval	Urinary problems
3	Bat	<i>Pteropus spp.</i>	Blood and flesh	Joint pain
4	Hare	<i>Lepus nigricollis</i>	Excreta, dried powdered applied on stomach	Constipation
4	Hare Hare	<i>Lepus nigricollis</i>	Skin fried in vegetable oil	Applyfor wounds on the shoulders of Ox
	Hare Hare	<i>Lepus nigricollis</i>	1 drop of blood+ 10ml sugar	Asthma
	Hare	<i>Lepus nigricollis</i>	Blood	Worms (ascaris)
5	Goat	<i>Capra hircus</i>	1gm Bloodtwice a day	Asthma, cough
6	Goat	<i>Capra hircus</i>	Hoof boiled & the secretion is taken orally	Joins the fractured bones
	Goat	<i>Capra hircus</i>	Milk	Fewer in children
	Sheep		Milk +lemon juice intake	Stomach pain
7	Cat	<i>F.domesticus</i>	Urine	For ear discharge
8	Cat & cobra	<i>F. domesticus & Naja spp.</i>	Bone Ash	Tonsillitis
9	Piglets (domestic)		Blood	Back pain
10	Dog (dead)	<i>Canis familiaris</i>	Backbone ash	Piles
11	Cow or buffalo	<i>Bos spp</i>	Ghee (kept for 5 yrs)	Removes scars
13	Cow & dog	<i>Bos spp+</i> <i>Canis</i>	Butter washed 110 times+ powdered bone ash of dog	Piles
14	Cow	<i>Bos spp</i>	Betel leaf+ 1gm cowdung	For poisonous bites, lowers poison
	Cow	<i>Bos spp</i>	Milk+neem juice apply twice aday	Leprosy
15	Donkey	<i>Equus africanus asinusLinnaeus</i>	Milk Excreta+ oil(til)	Worms Eczema
16	Horse	<i>Eqqus calabus</i>	1 gm sweat +100gm H2O	Reduces the addiction (alcohol)
	Horse	<i>Eqqus calabus</i>	Hair of the tail tied on mole	Mole dries in few days.
17	Human	<i>Homo sapien</i>	Milk	For Eye disorders in infants
		<i>Homo sapien</i>	Urine	Antiseptic for wound healing

Invertebrates

Table 4:

SI no.	Common name	Scientific Name	Parts used	Aliments
1	Leech	<i>Hirundo medicinalis</i>	Entire animal	For skin diseases
2	Spider	<i>Lycosa spp.</i>	Egg boiled in coconut oil	Ear pain
3	Spider +honeybee	<i>Lycosa & Apis sps</i>	Ash	Liver swelling

Animal Diversity of Study Area

Table 5:

Table 2: Animal diversity of study area	Phy/Class	No of Animals
1	Mammalia	13 (50%)
2	Aves	05 (20%)
3	Reptilia	05 (20%)
4	Annelida	01 (4%)
5	Arthropoda	02 (8%)
		T- 26Animals

4. Results & Discussion

The present study revealed the traditional knowledge of treating various kinds of ailments using different vertebrate animal and their products by the local tribal and rural people inhabitants of villages Findings pertaining to animal parts, products & their uses by different tribes in various kinds of sufferings are summarized. Entire organism & their body products like flesh, bones, fat, ash, shell, secretions their products like ghee, honey & their metabolic products like urine, excreta are used in traditional medicine. They are used alone or in combination with other minerals. Body parts most used are exoskeleton, blood, flesh. About 30 diseases like joint pain, asthma, earache, Herpes, Piles, paralysis are cured with the help of animal drugs. Wide variety of medicines derived from both vertebrates & invertebrates have proved to be the vital source of tribal medicine.

Tribes believe in sustainable use of natural resources but with involvement of modern men in consumption of animal origin drugs have led to large scale killing of some rare & endangered wild life. Many people were found to lack formal schooling education but they have knowledge about use of local animal and plant resources for traditional medicinal purpose.

5. Conclusion

There is a delicate inter relationship between the forest ecosystem, its inherent biodiversity & traditions culture of tribes. Indigenous people, their communities and other local communities have a vital role in environmental management and development because of their knowledge and traditional practices. States should recognize and support their identity, culture and interests and enable their effective participation in the achievement of sustainable development. The traditional knowledge and resource management practices of the indigenous people should be applied in modern development strategies. Hence the knowledge of medicinal or nutritive quality of all animal species becomes the need of the hour. The use of animals for medicinal purposes is part of traditional knowledge which is increasingly becoming relevant to discussions on conservation biology, public health policies, sustainable natural resources, biological prospect ion and plants. The study provides a comprehensive account of the vast wealth of traditional knowledge and

healthcare. We hope that this information will be helpful in further research in the field of ethno zoology, ethno pharmacology and biodiversity conservation point of view.

6. Acknowledgement

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