

ETHNOZOOLOGICAL REMEDIAL PRACTICES BY THE MADIA TRIBE AND INDIGENOUS INHABITANTS OF DANTEWADA DISTRICT CHHATTISGARH, INDIA

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ABSTRACT : Connections between animals and humans date back thousands of years, and cultures all over the world have developed characteristic ways of interacting with the regional fauna over time. Chhattisgarh has an immense faunal, floral, as well as cultural diversity with many ethnic communities who are primarily dependent on the traditional medicinal system for their primary health care. Documentation and evaluation of this indigenous remedial knowledge may be helpful to establish new drugs for human health. The present study is intended to look into different zootherapeutic medicinal uses in the traditional health care system among Madia tribe and indigenous inhabitants of Dantewada district of Chhattisgarh. It is primarily based on field surveys carried out in villages, where dwellers provided information on animal species used as medicine, body parts used to prepare the remedies, and the illnesses to which the remedies were prescribed. The animal parts namely blood, scales, skull, feathers, ear tufts, claws, heart, liver, kidney, blood, eyes, fat, beak, tears, eggshells, meat and bones for the treatment of asthma, anemia, arthritis, joint inflammation, body pain, burns, conjunctivitis, cough and cold, gonadial disease, malaria fever, impotency, leprosy, osteoporosis, paralysis, pthisis, weakness, tingling in feet and fingers and tuberculosis. A total of 31 animal species were recorded and they are used for 24 kinds of different ethnozoological purposes. The documentation indigenous knowledge on animal-based medicines should be very helpful in the formulation of strategies for sustainable management and conservation of bio-resources as well as providing potential for the novel drugs discovery.

Key words : *Madia, Tribe, Ethnozoology, Fauna, Bastar, Dantewada.*

INTRODUCTION

Animals and the products derived from their body organs constitutes the part of inventory of medicinal substances which are widely used by the tribal people since time immemorial and such practices still exist in traditional medicine (Unnikrishnan,1998). The traditional medicinal knowledge of indigenous people across the globe has played an important role in identifying living organisms which are important for treating human health problems. According to the World Health Organization (1993), about 80% of the world people rely primarily on animal and plant-based medicines.

Since ancient times, animals and their products have been used in the preparation of traditional remedies in various cultures (Lev,2003). Wild and domestic animals and their by-products such as hooves, skins, bones, feathers and tusks are important ingredients in the preparation of curative, protective and preventive medicine (Adeola,1992 and Anageletti *et al.*,1992).

Many attempts have been made to elucidate the ethnozoological remedial practices by tribal communities in Chhattisgarh and other states of the India but less of this reflects the zootherapeutic medicinal uses of various body parts of the animals. Therefore it is important to document the traditional knowledge of tribal human communities, since the majority of such communities are losing their socioeconomic and cultural traditions.

MATERIAL AND METHODS

The study area Dantewada district of Chhattisgarh, also known as Dakshin Bastar (South Bastar) district is located in the Southern part of Chhattisgarh. It is situated at an elevation of 351 m) 1,152 ft from sea level and at a longitude of 18°9' and latitude of 81°35'. Total geographical area of Dantewada district is 3410.50 km². Dantewada district has successfully safeguarded its age's old rich tribal culture and tradition to till date. Total population (2011 census) of Dantewada district is 533,638. Dantewada is inhabited by several tribal groups, out of which three particular tribes are found widely in the district namely Muria/Dandami Madias or Gonds, Dorla and Halba. The population of these tribal groups in the district is 410,255 (76.88%). Madia tribe was selected for present study. The Madia have a deep-rooted faith in the indigenous healing system.

Dantewada district is divided into four tehsils or development blocks, Dantewada block (31 gram panchayats), Geedam block (34 gram panchayats), Katekalyan block (23 gram panchayats) and Kuwakonda block (26 gram panchayats).

The present work was carried out in selected two villages in each of the four tehsils or development blocks of Dantewada district. These villages are Gamawada and Pondum (Dantewada block), Kutulnar and Kasoli (Geedam block), Cholnar and Palnar (Kuwakonda block) and Surnar and Metapal (Katekalyan block). Total 25 villagers (including

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Table. 1 List of animals used for medicinal purpose by Madia tribe of the Dantewada district.

S.	Vernacular name	Scientific Name	Local Name	Useful Body Part/Treatment For
1.	Leech	<i>Hirudinaria granulosa</i>	Jonk, Honde (m)	Used to treat wounds by sucking pus formed.
2.	Bedbug	<i>Cimex lectularis</i>	Khatmal Nadak (m)	Animal powder mixed with honey and used for asthma treatment.
3.	Brachyura	Spp. of Crab	Kekda Aete (m)	Deficiency of calcium, weakness of bones (Osteoporosis)
4.	Centipede	<i>Scolopendra</i> sp.	Kankhajura Koandepudi (m)	Animal part used for pain relief in injuries caused by sting of insects
5.	Cockroach	<i>Periplanata americana</i>	Tilchatta	Animal ash treatment for asthma.
6.	Dragon fly	<i>Sympetrum flaveolum</i>	Fafa Furfundi	Whole body roasted & crushed, treatment for asthma.
7.	Dung beetle Coleoptera Scarabaedae	<i>Scarabaeus viettei</i>	Gobarkida	Whole body crushed and mixed with mustered oil for hair growth
8.	Green tree ant, red ant	<i>Oecophyllas maragdina</i>	Matana, Matara ChapdaLai (m)	Improves eye sight, for treatment of malaria fever
9.	Lac insect	<i>Lacifer lacca</i>	Lakh keeda	Lac powder mixed with tora oil & applied leprosy
10.	Milipede juliformia-julidae	<i>Julus</i> Spp.	Maniyari Karskonda (m) Gorskonda (m)	Animal roasted, powdered and mixed tora oil, applied in burn cases
11.	Red velvet mite, rain bug	<i>Trombidium holosericeum</i>	Rani keeda Veerbahuti (m)	Impotency (Indian viagra)
12.	Scorpion	<i>Palammius</i> Spp.	Bicchu Atemind (m)	Ash used for gonadial disease Cooked whole body used for cough and cold
13.	Spider	<i>Arenea</i> Spp.	Makadi Balo (m)	Web is applied to stop bleeding.
14.	Asian stinging catfish or fossil catfish	<i>Heteropnuestes fossilis</i>	Singhi, Kenwai	Body weakness (rich in vitamins, minerals and omega fatty acid)
15.	Eel-Fish	<i>Eel-anguilla</i>	Dudung Kuchiya (m)	Body weakness, anemia (deficiency of hemoglobin)
16.	Walking cat fish	<i>Clarias batrachus</i>	Mangur, Mongri	Body weakness, anemia (deficiency of hemoglobin)
17.	Indian mud turtle or flap-shell turtle	<i>Lissemys punctata</i>	Kachhua Amul (m)	Animal shell ash mixed with tora oil applied on human hump (kubad), flesh and meat rich in protein.
18.	Indian python	<i>Python molurus</i>	Ajgar Masodtadas (m)	Flesh, meat and fat body pain and burn cases
19.	Monitor lizard	<i>Varanus bengalensis</i>	Goh, Gohiya Goiha Gohi Hurpal (m)	Flesh, meat and fat arthritis, joint inflammation
20.	Rat snake	<i>Ptyas mucosa</i>	Dhaman, Dhamana, Ghoda Pachhad Asoudhiya Yerigodum (m)	Flesh, meat and fat used in arthritis, Joint inflammation
21.	Russell's earth boa	<i>Gongylophis conicus</i>	Mudheri Malomundo (m)	Flesh used for weakness & blood applied for Tingling.
22.	Crow	<i>Corvus splendens</i>	Kauaa	Uses of conjunctivitis (eye infection)
23.	Owl	<i>Tyto alba</i>	Ullu, Ghughuwa	Their body parts such as skull, feathers, ear tuffs, claws, heart, liver, kidney, blood, eyes, fat, beak, tears, eggshells, meat and bones for ceremonial pujas and rituals.
24.	Red jungle fowl	<i>Gallus sonnerati</i>	Jangali Murga Gudum (m)	Body weakness, anemia (deficiency of hemoglobin)
25.	Quail	<i>Coturnix japonica</i>	Bater, Lawa Uti (m)	Body weakness, anemia deficiency of Proteins and hemoglobin
26.	Laughing dove small-pigeon	<i>Spilopelia senegalensis</i>	Padki Parampitte (m)	Blood, flesh and meat treatment of paralysis, blood applied for tingling and on paralytic part.
27.	Bat	<i>Chiroptera</i> Spp.	Chamgadad Gadoor (m)	Flesh, meet and fat used for treatment for tingling infect and fingers and tuberculosis, pthysis
28.	Indian wild boar	<i>Sus scrofa cristatus</i>	Jangalisuar, Barha Guppa Paddi (m)	Flesh and meat used for treatment of weakness, fat for burns cases
29.	Pangolin, scaly anteater	<i>Manis crassicaudata</i>	Chintikhor Salkhapri (m)	Scale, treatment for backache & body pain
30.	Porcupine	<i>Hystrix indica</i>	Shehi	Treatment for tuberculosis.
31.	Rat	<i>Rattus rattus</i>	Chuha	Meat used for food and very proteineus.

Siraha, guniya, and the baiga who practice medicine as well as act as priest for their respective clans) from each village were selected for gathering ethno-zoological information's. Field survey was carried out from March,2016-April,2018 by personal interviews through schedules and interview guide.

The selection of informants was based on their experience, recognition as experts and knowledge concerning traditional zootherapeutics (Sirha, so called expert by the local people) who provided the information regarding various medicinal uses of animals and their products (local name of animal, mode of preparation, application etc).

RESULTS AND DISCUSSION

A total of 31 animal species were recorded being used for 24 kinds of different ethnozoological purposes (Table.1 & Plate.1a.b). Among these, the arthropods constitute the highest number of animal parts and/or their products 12 (38%), followed by mammals 5 (16.12%), reptiles 5 (16.12%), birds 5 (16.12%) fish 3 (10.54) and annelids 1 (1.3%) which constituted the lowest in the ethnozoological practice of the study area.

Tribal people use these animals and their products for the treatment of 24 kinds of different ailments including asthma, cough and cold, anemia, arthritis, joint inflammation, body pain, burns, conjunctivitis, gonadal disease, malaria fever, impotency, leprosy, osteoporosis, paralysis, pthysis, weakness, tingling in feet and fingers and tuberculosis. These animals were used as whole or as their byproducts namely blood, scales, skull, feathers, ear tufts, claws, heart, liver, kidney, eyes, fat, beak, tears, eggshells, meat and bones etc. for the treatment. Traditional medicines are different in their modes of application. Most of the medicines are applied by eating orally, followed by drinking orally and massaging dermally. Other modes of application like tying, bathing, fumigation and heating were the less used modes of application. Many of the animals were used for the treatment of multiple ailments singly or in combination with other animal products and their parts.

Madia tribes of Bastar are intimately associated with traditional, local healers called Sirha whose skillful use of herbs plus faith of the tribes are curing patients for centuries. Such Knowledge and skill does exist till these days. Of the total 31 species of animal body parts/products, vertebrates comprised 18 of the total species of animals. They were mammals, Fishes, birds and reptiles. The remaining 13 species of animals were invertebrates like arthropods and annelids. It was recorded that invertebrate group have high ethnozoological importance in the study area. This might be due to cultural ideology of the community.

The study also showed some of the animal species being used by Madia ethnic groups in the treatment of various ailments of human beings. These animals were used as whole or

byproducts of these animals. These observations were similar to ones reported by Kindie *et al.* (2005). Mahawar and Jaroli (2007) have recorded 15 animal species used for different ethnomedicinal purpose among saharia tribes of Rajasthan. Jain *et al.* (2007) during their ethnomedicinal survey of different ethnic groups (Bhil, Meena and Garasia) of Tadgarh-Raoli wild life sanctuary, have identified several substances of animal origin to relieve various ailments through indigenous health care practices. Mahawar and Jaroli (2008) have reported 109 animal species and their 270 uses in traditional medicine in different parts of India. The use of mammals in traditional medicine has also been reported from India (Borah & Prasad,2016 and Verma *et al.*,2014).

This finding demonstrates the importance of local faunal diversity in furnishing folk medicine as suggested by Alves and Rosa (2007) who observed that faunal composition, accessibility and availability directly influence the type of zootherapeutic resources used in any given region. Cockroach (*Periplaneta americana*), found to treat asthma in our study site, has also been reported to have the same usage in Brazil (Costa-Neto and Oliveira,2000). Mishra and Panda (2011) have documented the use of cockroach excreta in the treatment of bronchitis from coastal region of Orissa.

However, in some reports mammals and reptiles are among the main group of animals used in folk medicine (Alves *et al.*,2008). Sacrifice of most of the animals, for treatment of human ailments, is banned legally, particularly since the promulgation of Wildlife (Protection) Act 1972, by the Indian Parliament. Nevertheless, in remote areas, due to unawareness and negligence of the laws and rules, such age old practices are continuing.

Bastar is rich in biological resources and home to different ethnic groups, many of which have adopted various techniques to protect their health care systems and uses traditional medicine derived from plants and animals. Animal derived medicines are an alternative to treat ailments in rural areas.

Results of this study revealed that various body parts and/or products of 31 animal species were used as a traditional medicine to treat different ailments in the study area by the Sirhas of Madia tribe. The results also show that there is a wealth of ethnozoological knowledge to be documented which could be of use in developing novel drugs.

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Cimex lectularis



Crab Spp.



Scolopendra



Periplaneta americana



Sympetrum flaveolum



Scarabaeus viettei



Lacifer lacca



Julus Spp.



Oecophylla smaragdina



Trombidium holosericeum



Palammius Spp.



Arenea Spp.



Heteropnuestes fossilis



Eel-anguilla

Plate. 1a Animals used for ethnozoological purposes by Madia tribe of the Dantewada district.



Clarias batrachus



Lissemys punctata



Varanus bengalensis



Python molurus



“Combat Dance” of *Ptyas mucosa*



Flesh of *Ptyas mucosa*



Gongylophis conicus



Corvus splendens



Gallus sonnerati



Coturnix japonica



Tyto alba



Chiroptera Spp.



Spilopelia senegalensis



Manis crassicaudata



Hystrix indica

Plate. 1b Animals used for ethnozoological purposes by Madia tribe of the Dantewada district.

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