

Preliminary Ethno-zoological study in tribal areas of Mayurbhanj district, Odisha, India

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Abstract

In India, many ethnic communities are dispersed all over the country and these people are still totally depended on local traditional medicinal system for their health care. India is gifted with faunal and floral biodiversity. In ancient days nature was the major source of the ingredients, vital for the preparation of medicines and has been a permanent resource of raw supplies used for treating human diseases. Ethno-zoology is the scientific study of animals for curing diseases by different traditional communities. Earlier man searched for natural foods from their surroundings to have a healthy life. This effort has resulted in selecting a large number of food items by human communities who lived in different parts of the world. The present study was carried out in the tribal regions of Mayurbhanj district. Through this study, documentation of the native knowledge of ethno-zoology to treat familiar human ailments was done. Now conventional knowledge is developed through the collective experience from many generations to provide a potential reference to utilize faunal species. These are still practiced in several tribal and rural communities for the development of therapeutics. The use of traditional knowledge and ethno-zoological studies in Khunta tribal region of Mayurbhanj district, Odisha, India were briefly reviewed in this article.

IndexTerms - Ethnozology, Mayurbhanj, Tribes, Diseases, Therapeutics.

I. Introduction

Ethnozology is the branch of science which deals with direct relationship of animals to mankind. It deals with the significance of economically important animals in tribal life and socio-cultural aspects of tribal peoples. It concentrates on the study of the past and present relationship between the human society and the animal resources around them. Animals are also used for food and religious purposes (Holland, 1994). 70-80% of the world rural population depends on traditional medicine for their primary health care. Relation of human beings with animals has been intimate right from the beginning of civilization. Animals have been playing an important role in culture, economy and religious beliefs. The zootherapeutic resources constitute the vital ingredients in different traditional medicinal systems. The ethnic people have been maintaining a healthy environment by using the surrounding biological resources (Lohani, 2010). Healing of human ailments by using therapeutics obtained from animals is known as zotherapy (Dixit, *et al.* 2010). India is gifted with varieties of flora and faunal biodiversity. These large variations in diversity are due to the variation in geographic condition. World Health Organisation reported that more than 70% of the world population primarily depend on ethno-medicines. Many animal resources are widely used significantly in preparation of traditional drugs for better therapy (Adeola, 1992). In modern world, zotherapy is an important alternative for the treatment of various diseases (Jaroli, 2010), (Quave, 2010). Various studies on zoo-therapeutics in India have been documented in great historical books like "Ayurveda" and "Charaka Samhita". Different tribes and ethnic communities are dispersed all over the country, and they have a rich knowledge about animals and their medicinal values which are still being practiced for their primary health care needs. About 20% of the ayurvedic medicines are prepared from animal-derived ingredients (Unnikrishnan, 1998). As Odisha is one of the tribal rich states in the nation, people here are generally backward and get their medicines from natural surroundings. Here one tribal region near Similipal National park is documented and presented in this article.

II. Materials and Methods

2.1 Study area

The study was conducted in tribal belts of "Khunta" block of Mayurbhanj district, Odisha, India from the month of October, 2018 to January, 2019. Tribes like Santal, Kol, Bhumija, Bhuyan, Mahalis, Sounti are residing in the village of Dukura, Balimundali, Sarukana, Balidiha, Kantisahi, Damodarpur, Chhuruni, Dulisol, Juradihi, in Khunta block. Study sites were selected in tribal pockets of selected villages, in Khunta block.

2.2 Procedure of data collection

Data were collected by using questionnaires during the survey. It is an open ended interview about the animals and their products used in the preparation of traditional medicines. The experienced peoples were very much frequent about the preparation of medicines by using animal byproducts. According to them, they have been continuing the use of these medicines from ancient generations as an efficient tool of primary healthcare system. Data were collected with some vital information about the preparations of conventional medicines by using animal byproducts.

III. Results and discussion

It was observed that many tribes in Khunta region have been using animals and their derivatives in traditional medicine preparation. We have listed and studied the medicinal uses of different body parts of different animals. The medicinal uses of animal byproducts are tabulated below according to their administration in different ailments *i.e.* fungal infection, weakness, gastric disorder, respiratory problem, and wound healing etc. Different types of “bhasmas” are also used to cure different disorders and these can't be taken directly as they may cause harm to human health. So, these are taken along with natural components like honey and different plant products.

Table 3.1 Medicinal use of different bhasma in traditional therapy by the dominant tribes of Mayurbhanj district, Odisha.

Sl. No.	Species	Family	Common name	Ailments
1	<i>Turbinellapyrum</i>	Turbinellidae	Coach (Sankha)	The shell is used for treatment of diarrhoea, acne, hepatomegaly, abdominal pain, indigestion, loss of appetite, heartburn, acid reflux, hyperacidity gas problems.
2	<i>Helix pomatia</i>	Polygyridae	Snail (kshudra sankha)	Have wound healing property.
3	<i>Pacific oyster</i>	Ostreoidea	Samuka (muktasukti)	Shell is used in powdered form to treat Acidity, chronic gastritis, duodenal ulcer, heartburn, peptic ulcer, mouth ulcer, loss of appetite, indigestion, bone weakness, joint pain and back pain.
4	<i>Cypraea Moneta</i>	Cypraeoidea	Cowry (vartika bhasma)	Abdominal pain, blotting, duodenal ulcer, loss of appetite, indigestion,
5	<i>Dermochelyscoriacea</i>	Testudinidae	Turtl shell (Kurmapristabhasma)	Post menoposal problem, excessive bleeding, diabetes, ulcer, Abdominal pain
6	<i>Sepia apama</i>	Sepiidae	Cuttlefish bone (surmasapheda bhasma)	Asthma, osteoporosis, osteomalacia, low bone density, joint pains, headache,
7	<i>Pacific oyster</i>	ostreoidea	Pearl (Muktabhasma)	Stress disorder, depression, high blood pressure, acidity, ulcer, tooth decay, osteoporosis, osteomalacia, low bone density, joint pains, headache, frequent urination, muscular pain.
8	<i>Gallus gallus</i>	Phasianidae	Hen's egg shell (kukutandatwak bhasma)	Calcium supplement, anti-inflammatory, anti-arthritic, osteomalicia, osteoporosis, low bone mineral density.
9	<i>Acroporapalmata</i>	Coralliidae	Coral (pravala bhasma)	Bleeding problem, calcium deficiency, non-productive cough, general debility, acidity, ulcer, fungal infection, burning sensation in urine, arthritic, fever, depression, heart disease, asthma, piles, osteoporosis, osteoarthritis, heavy menstrual bleeding, menstrual pain, post-menoposal problems, oligospermia, premature graying of hair, low bone density, excessive uterine bleeding, calcium deficiency disorder.

IV. Conclusion

This study concluded that there is deep relation between nature and human. Animal products can be used in medicine and treatment of various common diseases without harming their life. It is suggested that the government should integrate this health care system into the existing one to ensure proper development and harnessing ethno medicine in India.

V. References

- [1] Adeola, M. O. 1992. Importance of wild animals and their parts in the culture, religious festivals, and traditional medicine, of Nigeria. *Environmental conservation*, 19(2): 125-134.
- [2] Dixit, A. K., Kadavul, K., Rajalakshmi, S., and Shekhawat, M. S. 2010. Ethno-medico-biological studies of South India, 9(1):116-118.
- [3] Holland, K. 1994. Medicine from animals: from mysticism to science. *Pharmaceutical historian*, 24(3): 9-12.

- [4] Jaroli, D. P., Mahawar, M. M., and Vyas, N. 2010. An ethnozoological study in the adjoining areas of Mount Abu wildlife sanctuary, India. *Journal of ethnobiology and ethnomedicine*, 6(1): 6-13.
- [5] Lohani, U. 2010. Man-animal relationships in Central Nepal. *Journal of ethnobiology and ethnomedicine*, 6(1): 31.
- [6] Quave, C. L., Lohani, U., Verde, A., Fajardo, J., Rivera, D. and Pieroni, A. 2010. A comparative assessment of zootherapeutic remedies from selected areas in Albania, Italy, Spain and Nepal. *Journal of Ethnobiology*, 30(1): 92-125.
- [7] Unnikrishnan, P. M. 1998. Animals in ayurveda. *Amruth*, 1(3): 1-23.

