

THE ROLE OF MAMMALIAN DRUGS IN RELATION TO HEALTH CARE AMONG TRIBALS IN JHARKHAND (BIHAR) PART- I

H.K. AZMI AND PRABHA PANDEY

DEPTT. OF ZOOLOGY, SHIBLI NATIONAL (PG) COLLEGE, AZAMGARH-276001, INDIA.

During the course of medico-ethnozoological survey of Jharkhand area of Bihar covering 4 districts namely Dhanbad, Hazaribagh, Ranchi and Sathal Pargana, available informations with regard to the native use of medicinal mammals by the tribals in the treatment of human diseases have been recorded. The study has revealed the use of about 12 mammals in the treatment of various human ailments.

INTRODUCTION

The medico-ethnozoological system makes extensive uses of a large number of drugs of zoological origin. These remedies are beneficial, or claimed to be so, in a variety of human ailments. Ethnozoological study highlights how the animal resources found could be conserved and utilized for the betterment of tribal races who have been exploiting varieties of opportunities related to nature for their survival in steep and remote forest areas since times immemorial (Joseph, 1982). Indeed, these tribals developed the art of healing through the use of different remedies of animal origin. Notably, the Indian systems of medicine have felt the importance of the drugs of zoological origin right from the ancient times (Puri, 1970). The study of pharmacologically-active substances in the animal kingdom is comparatively unexplored and could well be rewarding (Throp, 1967). The overall impression is that they have remedies for wide variety of ailments. The treasury of information is a virgin field. The first attemptable step should be to survey, collect and classify the relevant information/data. Accordingly a survey has been made to collect informations from certain tribes in Jharkhand area of Bihar. The informations, thus collected, are presented in this paper.

MATERIALS AND METHODS

The medico-ethnozoological data obtained in this study are based on the information collected through personal contact and interviews of various tribal communities of Jharkhand area in Bihar. The general idea about districtwise distribution of these, tribes could be had from the 'Tribal Map of India' (Gohain, 1971). Informations regarding their location, population and social structure were collected from Tribal Welfare and Block Development Officers. The interviews were arranged through the Head or Senior persons of communities. In each and every district, the tribal community was repeatedly interviewed from as many locations as possible to get accurate and elaborate informations regarding the remedies derived from various mammals, mode of their administration/application and therapeutic uses. Whenever, the language problem arose, the services of interpreters were utilized.

RESULTS

Interesting informations regarding the medicinal applications of different parts/organs/secretions/excretions and pathological products of 12 mammals were obtained through interviewing 7 tribes namely Santal, Munda, Oraon, Mahli, Lohra, Mal Paharia and Chick Baraik belonging to 4 districts (Dhanbad, Hazaribagh, Santal Paragana and Ranchi). These

Table I : Some medicinal applications of mammals by certain tribes of Jharkhand, Bihar.

Name of Animals	Part (s) used	Mode of Administration	Name of Disease (s)	Name of Tribe(s)	District(s) to which tribe (s) belong
Barasingha (<i>Cervus Duvauceli</i>)	Antlers	Ground, powder dissolved in water and applied on the chest for 2-3 days twice daily	Pneumonia, Ribs pain, Difficult breathing	Munda	Dhanbad
	„	Crushed into water, mixed with warmed castor oil and applied externally for 8-10 days, thrice daily	Eczema, Ringworm	Oraon, Munda	Dhanbad, Ranchi
	Flesh	Cooked and consumed for about 40 days, once daily	Loss of erectile power, Urinary Complaints	Lohra, Mal Paharia	Hazaribagh, Ranchi
	Excreta	Fresh excreta dissolved into water filtered and used as eye-drops twice daily	Allergies, Eye Troubles	Oraon, Munda	Dhanbad, Santal Pargana
	Bladder stone	Ground in water and taken alongwith honey twice a day, for 40 days	Hypertension, Loss of erectile power, Inflammation	Mal-Paharia	Santal Pargana
	„	Used as 'Surma' dust applied in the eyes	Eye diseases	Munda, Mal-Paharia	Hazaribagh, Santal Pargana
Bat (<i>Pteropus</i> sp.)	Whole animal	Boiled in water, mixed with decoction mustard oil and the emulsion massaged twice daily for about 40 days	Rheumatism, Sciatica, Paralysis	Mahli, Santal	Santal Pargana
	Flesh	Cooked with light spices and consumed for about one month once or twice daily	Asthma, Tuberculosis, Difficult Breathing	Santal	Santal Pargana
	Liver	Oil extracted from the liver, slightly warmed and applied in the eyes for 8-10 days once daily	Weak-sight	Santal	Santal Pargana, Ranchi
	Bone	Incinerated, powdered mixed with honey and applied over the gums	To facilitate Teething	Mahli, Munda	Dhanbad

Name of Animals	Part (s) used	Mode of Administration	Name of Disease (s)	Name of Tribe(s)	District(s) to which tribe (s) belong
Bison (<i>Gaur</i> sp.)	Fat	during teething period for 4-5 days, twice or thrice daily Warmed and applied externally for 1-2 days twice daily	Burns, Wounds	Mal Paharia	Santal Pargana
	Bile	Applied locally on vagina once daily	To facilitate Delivery	Chick Baraik	Dhanbad
	Milk	Applied locally on the phallus at bed time (produces feeling of warmth) once about daily for one month	Loss of Erectile Power	Mohli, Oraon	Hazaribagh
	„	Mixed with honey and applied in the eyes once daily	Conjunctivitis and other allied diseases	Mahli, Oraon	Hazaribagh
	Blood	Fresh blood applied externally over the affected sites till cured	Small pox, Chicken pox, measles	Bedia	Hazaribagh
	Blood	Squeezed and the serum orally taken (in large dose) in empty stomach for 4-5 times in life.	To Stabelize the age	Bedia, Santal	Hazaribagh
	„	Dried powdered, macerated in water and consumed for 4-5 days, once daily	General Weakness	Munda	Dhanbad
	Tongues	Dried-powdered, mixed with honey and given for 8-10 days, twice daily	Rickets	Bedis	Hazaribagh
	Fat	Warmed and massaged over the chest for a few days till the disease is cured	Pneumonia, Crackson Foot	Santal	Santal Pargana
	Excreta	Applied externally once or twice for 2-3 days	Burns, Wounds	Mal Paharia	Ranchi
	Bile	A tea spoonful taken orally alongwith water as laxative	Abdominal pain, Constipation	Bedia	Ranchi

Name of Animals	Part (s) used	Mode of Administration	Name of Disease (s)	Name of Tribe(s)	District(s) to which tribe (s) belong
Buffalo (<i>Bubalus Bubalis</i>)	Dung	Applied extrenally for 2-3 time only	Internal Abscess	Chick Baraik	Ranchi, Dhanbad
	"	Dried, incinerated powdered,dissolved in water and washed below the naval for about 10minutes, thrice a day	Urinary Complaints	Oraon	Ranchi
	Flesh	Cooked with light spices, soup consumed and eaten once or twice daily for 10-15 days	Sexual Debility anaemia.	Oraon, Munda	Santal Pargana
	Heart	Cooked with light spices taken once daily, for about one month	Epilepsy, Heart	Lohra	Ranchi, Dhanbad
	Brain	Cooked and orally taken once or twice, for about 21 days	Trouble Impotency	Mal Paharia	Ranchi
	"	Minced and mixed with vinegar and applied on the affected site till cured	Leucoderma	Bedia Mahli	Santal Pargana
	Blood	Instilled in ears twice daily, for 2-3 days	Ear-trouble	Chick Baraik	Dhanbad
	Testicles & Male organ	Soup orally taken once daily for 8-10 days	Loss of Sexual vigour.	Santal	Santal Pargana
	Kidney stone	Used as 'surma' in the eyes regularly	Eye-ailments	Oraon	Ranchi
	"	Powdered, mixed with honey and taken orally for 8-10 days, twice daily	Cystic Calculi	Mal Paharia	Dhanbad
Crow Pheasant (<i>Centropus Sinensis</i>)	Whole body	Cooked, boiled, soup consumed, and flesh taken with light spices for about 20 days, once daily	Asthma, Tuberculosis	Munda	Hazaribagh

Name of Animals	Part (s) used	Mode of Administration	Name of Disease (s)	Name of Tribe(s)	District(s) to which tribe (s) belong
Elephant (<i>Elephas Maximus</i>)	Blood	Consumed for one week, once daily	Loss of sexual vigour	Santal	Dhabad
	Flesh	Cooked with light spices, meat taken and soup orally taken once daily, for 7-8 days	Paralysis, Sciatica, Gout	Santal	Santal Pargana
	Dung	Dissolved in water and applied externally for 2-3 days, twice daily	Skin diseases	Mahli	Dhanbad
	"	Burnt, fumes inhaled deeply 2-3 times a day, for one week, three days after menstruation	To induce Abortion	Mahli	Dhanbad
	Tusk	Tied around the neck or used as ring so as to be in touch of the skin	To energise the Body	Oraon	Ranchi
	"	Tied around the waste, touching the skin	Impotency	Oraon	Ranchi
	"	Ground, powdered and burned in a closed vessel, emerging fumes are inhaled deeply for 4-5 days, once daily	Fits (Neurotic fits)	Chick Baraik	Ranchi
	"	Ground, powdered, mixed with oil and applied on the affected site	Leucoderma	Chick Baraik Oraon	Ranchi
	Bile	Used as eye-ointment regularly	Week sight	Bedia	Hazaribagh
	Urine	2-3 tea spoonful given to sterile women once a week, for about 3 months	To facilitate Conception	Munda, Santal Munda Bedia	Santal Pargana Hazaribagh
Goat (<i>Capra</i> sp.)	Liver	Boiled, juice consumed liver cooked and for 8-10 days, once daily	Night blindness, week sight		
	"	Dried liver taken for about 10-12 days, once daily	Difficult breathing, Night-blindness	Munda, Lohra	Ranchi
	Urine	Filtered and orally taken Applied externally twice daily, for 7-8 days	Tuberculosis Dropsy	Mal-Paharia Mal-Paharia	Santal Pargana Santal Pargana

Name of Animals	Part (s) used	Mode of Administration	Name of Disease (s)	Name of Tribes	District(s) to which tribe (s) belong
Jackal (<i>Canis Aureus</i>)	Excreta	Paste form applied externally over the affected portion for 2-3 days, twice daily	Abscess, Internal injury	Santal	Santal Pargana
	Bladder stone	Ground, mixed with goat milk and taken orally till cured	Impotency, Pneumonia, Cystic Calculi, Epilepsy, fever	Oraon	Santal Pargana Hazaribagh
	Blood	Applied externally for 4-5 days, once daily	Eczema	Munda, Oraon	Hazaribagh
	Fat	Warmed and massaged externally for 10-12 days, twice daily	Rheumatic pain, Fracture	Oraon	Dhanbad, Ranchi
	Flesh	Cooked and consumed once or twice for 8-10 days	Melancholia, Rheumatism	Chick Baraik Lohra	Ranchi
	Bile	Instilled in eyes twice daily, for about one month	Cataract	Bedia	Santal Pargana
Monkey (<i>Maceca</i> sp.)	Milk	Instilled in eyes once at bed time till cured	Cataract	Bedia	Santal Pargana
	Blood	Applied externally for 4-5 days, once daily	Skin disease	Santal	Santal Pargana, Dhanbad
	Bile	Applied over the head	Hyperpyrexia,	Santal	Santal Pargana
	Liver	Squashed into water, Boiled and consumed for 4-5 days twice daily	Night blindness, weak sight	Santal	Santal Pargana
	"	Cooked and consumed once daily for about 30 days.	Epilepsy	Santal	Santal Pargana
Porkupine (<i>Hystrix Indica</i>)	Flesh	Cooked and consumed twice a week for about 5-6 weeks	Anaemia, Phthisis, Cough, eye diseases Piles	Munda	Dhanbad
	Intestine	Dried, powdered, macerated in water and given for 4-5 days, once daily	Weakness of Legs	Oraon	Hazaribagh
	Liver	Boiled with salt and given to children for 15-20 days, once daily	Rickets	Mal Pahariya	Santal Pargana

Name of Animals	Part (s) used	Mode of Administration	Name of Disease (s)	Name of Tribe(s)	District(s) to which tribe (s) belong
Rat (<i>Rattus</i> sp.)	Fat	Warmed and applied in the eyes, till the disease is cured	Conjunctivitis	Santal	Santal Pargana
	Excreta	Fried in mustard oil, filtered/strained and dropped into the ears for 2-3 days, once daily	Ear ailments	Santal	Dhanbad
	Whole body	Roasted on fire and consumed with 'Handia' a local liquor by locating woman for 2-3 days, once daily	Galactoschesia	Santal	Santal Pargana
	„	Cooked in earthen pot with equal amount of garlic and consumed, twice a month during gestation period	To facilitate Parturation	Santal	Santal Pargana
	Flesh	Cooked with light spices and consumed once daily, for about 8-10 days	Urinary complaints, Piles	Munda, Santal	Santal Pargana, Dhanbad
	„	Freshly killed flesh applied on snake bite	Snake bite	Santal	Santal Pargana
	„	Cooked and consumed by ladies once, for 8-10 days	Galactoschesia	Santal	Santal Pargana
	Fat	Warmed and massaged externally for a few days, till the disease is cured	Paralysis, Rheumatic pain	Santal Munda	Ranchi, Hazaribagh Dhanbad
Tiger (<i>Panthera tigris</i>)	„	Warmed and massaged on the lumbo-sacral region once daily, for 30 days	Loss of sexual Vigour	Chick Baraik	Ranchi, Hazaribagh Dhanbad
	Blood	Applied externally as and when available	Skin diseases	Oraon, Munda Bedia	Ranchi
	Bone	Piece of bone tied round the waist	To energise the body	Bedia	Hazaribagh
	Bile	Instilled in eyes once or twice daily till the disease is cured	Cataract week-sight Night Blindness	Bedia	Hazaribagh

Name of animals	Part (s) used	Mode of Administration	Name of Disease (s)	Name of Tribes	District(s) to which tribe (s) belong
	Urine	Used as pessary (intravaginal application) before intercourse,	For Antifertility	Lohra, Mahli	Ranchi
	Milk Excreta	Instilled in eyes Given to the patients with country liquor (Local wine)	Weak sight Epilepsy	Oraon Munda, Oraon	Ranchi Ranchi, Dhanbad

informations are tabulated in the following pages.

DISCUSSION

The medico-ethnozoological data presented in this paper reveal several curious and fascinating informations about the medicinal usage of different parts/organs/secretions/excretions/pathological products etc. of various mammals by the tribal people of Jharkhand. While majority of these advocations are novel, a few do find place in earlier texts (Vohra, 1978). Perusal of literature did not indicate the medicinal uses of parts namely tusk, milk, testicles, excreta, heart, brain of the mammal covered in this report. However the medicinal applications of some complied with the earlier reports. The use of fat from bat, jackal, tiger, bison has been mentioned for rheumatism (Kabiruddin, 1955; Khan, 1911; Nadkarni, 1954) and loss of erectile power of male sex organs (Anonymous, 1950, Kabiruddin, 1955; Nadkarni, 1954) in general. Fats of wild animals are considered warmer than the domestic animals (Hussain, 1771). Similarly the flesh of Barasingha, bat, Crowpheasant, Jackal has been respectively recommended for the treatment of paralysis (Hussain, 1771), dropsy (Khan, 1911) cough and phthisis (Khan, 1911; Nadkarni, 1954) and dung for skin hyper pigmentation (Puri, 1970; Rao, 1970) and Haemorrhage (Khan, 1911) respectively. Milk of tiger for tuberculosis, general weakness, cataract (Nadkharni, 1954; Khan, 1911) and that of tiger in eye diseases (Khan, 1911).

This report together with those about use of mammalian drugs by the tribals in Rajasthan (Azmi, 1989; Maiti, 1984) as also the general informations embodied in certain compilation (Watt, 1889-1896 & Wealth of India 1984 to 1976) and Materia Medica (Ansle, 1926; Kant, 1970) may excite Biomedical scientist a curiosity that may ultimately lead to momentous undertaking to explore the potentialities, effectiveness, proper utilization of such drugs in our current struggle against diseases and sufferings.

ACKNOWLEDGEMENTS

Thanks are due to Dr. P.K. Maiti, Scientist 'D', Zoological Survey of India, Calcutta (Govt. of India) for valuable suggestions during the present study.

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