

USE OF REPTILIAN FAT AS DRUG BY THE TRIBALS OF DEVIPATAN REGION OF U.P.

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ABSTRACT

The paper deals with medicinal value of fat of reptiles, as practiced by the tribals of Devipatan region of U.P., covering 6 districts, (Gonda, Bahraich, Basti, Deoria, Faizabad and Gorakhpur). The six species of reptiles may be treated as new records for medicinal usage, as far as important literature has been consulted.

KEYWORDS : Reptilian fat, Drugs, Tribals

Since ages, primitive people are dependent on nature for their survival. Their intimate relationship with nature is noteworthy. They depend on nature for their food and shelter.

Even, the aboriginals developed the art of healing, through the use of various remedies of zoological origin (Azmi H. K. 1989, 90, 91). These remedies are beneficial in treatment of a number of ailments. Contemporary society may benefit from the experience of tribals in fighting against diseases and sufferings (Azmi H. K., 1990).

The unexplored animal kingdom has proved to be very rewarding, in extracting biologically active substances from them. These can be put use of, as medicines and a lot more. The systematic exploration of extracting biologically active substances from plant and animals has already proved a boon, and a lot more appreciable measures have to be taken in this area. A lot of information collected, has been presented in this paper.

Protein exedin-3 from saliva of lizard can dilate blood vessels. Tail of some of the species of lizard contain aminoglycoside, which is used to cure bacterial infections and can heal sore throat, influenza, cough, swelling and even tumour. Adipose tissue derived stromal cells, maintain the preservation of adipose tissue integrity by production of adipocytes. Adipose tissue contain more mesenchymal cells than bone marrow. It contain 20% eicosapentanoic acid as omega 3-fatty acid. Omega 3-fatty acids behave very differently in all membranes than any other fats. They are much more dynamic, so they allow a lot towards physiological functions, concerned with the mobility of enzymes. They assist various enzymes.

MATERIALS AND METHODS

The general idea about district wise, distribution of tribals was had from the Tribal map of India (Gohain, 1971). Information regarding the location, population and social culture was collected from the District and Block development officers. Repeated interviews of tribals were taken, from various locations, so as to get elaborate and accurate information, regarding the ways they had been using plant and animal derivatives as a remedy for various ailments. Interpreters and translators were involved, where understanding of language and means of communication was posing a problem. Thus, the medico-ethnozoological data was collected.

Specimens of reptiles were anaesthetised using xylazine, and their body fat was removed. Reference specimens were fixed in 70% ethanol. The fixed oil present in body fat located in the ventral region were extracted with hexane (60 degree centigrade) for about 6 hours in Soxhlet apparatus. Hexane was decanted, filtered and solvent was removed by heating in a waterbath at about 70 degree centigrade for 2 hours. The extracted oil was stored in freezer for future use.

Fatty acids were analysed by identifying their methyl esters.

Test solution of reference was prepared using 20mg of oil dissolved in 1ml of dimethyl sulfoxide (DMSO), to give an initial concentration of 20mg/ml. Solution was diluted with sterile water. Minimum inhibitory concentration (MIC) was determined, using microdilution series.

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RESULTS

Extracts of fat and various other parts of reptiles is used as medicine. The information was obtained through interviewing the tribals of tribes Tharu , Buksa and Mushar, found in that region. The format in the data, is an

alphabetical arrangement of the vernacular names of reptiles and zoological names are given in parenthesis.

Fat was found to be composed of 85%unsaturated and 13%saturated methyl esters of fatty acids. Fat extracts when used alone, did not demonstrate any clinically

Table 1

Name of Reptile	Mode of Administration	Disease
Cobra	warmed and massaged over Phallus for about 25 days	loss of erectile power
	Warmed and massaged	paralysis Rickets Joints pain Cracked foot
	Old fat warmed and massaged Externally once a day, for 20-25 Days	piles eczema ring worm
	Old fat warmed and massaged On lumbo-sacral region	impotency
Indian Rock Python <i>Python molurus</i>	warmed and applied externally	vitiligo wounds Abscess
Tortoise <i>Geochelone spp.</i>	warmed and massaged for 15 days	cracked foot piles internal injuries
	Warmed and massaged on lumbo-Sacral region for 21 days	impotency
	Warmed and applied externally For 4 -5 days. Old oil extracted and massaged	eczema Ring worm rheumatic pain
Terapine <i>Trionyx spp.</i>	warmed and massaged daily, till Cured	piles ribs pain Cracked foot
Uromastix <i>Uromastix hardwickii</i>	massaged on lumbosacral region warmed and massaged externally	impotency paralysis Rheumatism eczema
	Warmed and applied externally For 1 week	ringworm
	Warmed and massaged externally	paralysis Arthralgia
	Applied over penis once dail Warmed and applied on scalp	Sexual Vigour baldness Dandruff
Varanus	warmed and massaged till cure	paralysis Ribs pain Sprain
	Warmed and massaged on phallus And lumbosacral area for 40 days	impotency

relevant antibacterial activity, indicating that fats of reptiles is inefficient when used alone, in treatment of bacterial infections and also fungal infections. But, when given in combination with commonly used antibiotic or antifungal drug, exhibited remarkable positive results. This exhibited its use as medicine for various ailments.

DISCUSSION

Information presented in this paper reveals fascinating and important information regarding medicinal applications of different species of reptiles. Even in past, mention of parts of animals and plants were used in treatment of various diseases. Charak samhita deals in the vedic art of healing. Examination of literature shows that our knowledge of traditional drugs is meagre, except some occasional writings. Materia medica includes the mention of only a dozen of animals. Joseph (1982) mentioned the use of a number of animals as traditional drugs by various tribes of Madhya Pradesh. Maiti (1984) reported, the use of animals as drugs from ethnozoological survey of Bihar. Available literature did not indicate the medicinal application and mode of administration of some of the animals, which have been reported in this paper Tikadar et al., 1982.

The overall reports claim that fat of reptiles is used in many Unani medicines as well. It is used as ointment for external use in inflammation, muscular pain, piles, burns wounds and sexual debility. Internally, it is given to increase energy. Fats of male reptiles is much more effective for this purpose, compared to the fat of female reptiles.

Moreover, in many countries China, Russia, Arab and many gulf countries, they preserve the fat of reptiles in various forms. Unsaturated fatty acids affect the synthesis of endogenous microbial fatty acids, (palmitoleic acid and oleic acid). ss Older the fat, more novel properties are developed. Chinese treat rheumatoid arthritis by preserved fat of reptiles. Reptilian fat has those derivatives of

cholesterol, which release more energy compared to derivatives of cholesterol found in mammals, aves and pisces. Fats derived from reptiles is brought to medicinal use by the tribes and the details are discussed in the given table 1.

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