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ETHNOMEDICINAL TREATMENT AGAINST SCIATICA BY THE PRIMITIVE AND VULNERABLE TRIBAL GROUPS OF VISAKHAPATNAM DT., ANDHRA PRADESH

Koteswara Rao J[1], M. Krishna Rao[2]
[1]*Department of Botany, Govt. Degree and PG College, Puttur, Tirupati Dt., A.P.*
[2]*Department of Botany, Pithapur Rajah's Govt. College (A), Kakinada*

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ABSTRACT

Present study yielded 10 ethnomedicinal plant species covering as many genera and families used to cure sciatica by the PVTGs of Visakhapatnam district. Habit-wise analysis showed the dominance of trees and climber with 4 species each followed by shrubs and herbs one species each. Four plant species and 10 practices were found to be new or less known. Phytochemical investigations are needed for further use.

KEYWORDS *Ethnomedicine, Sciatica, Primitive Tribal Groups, Visakhapatnam, Andhra Pradesh*

INTRODUCTION

There are 550 tribal communities in India of which 93 were recognized as Primitive Tribal Groups (PTGs) by the Government of India as per Dhebar Commission. They live in inaccessible habitat in the hilly terrains with low literacy rate, stagnant or decreasing populations and practicing podu or shifting cultivation. In Andhra Pradesh, eight communities viz., Chenchus, Kolams, Konda reddis, Savaras, Thotis, Khonds, Porjas and Gadabas are recognized as PTGs and the last three are present in the Visakhapatnam district. Visakhapatnam district with an area of 11, 161 Km^2 (4.1% of the area of the state) is one of the north eastern coastal districts of Andhra Pradesh. The study area lies between 17º-34' 11" and 18º-32' 57" northern latitude and 18º-51' 49" and 83º-16' 9" in eastern longitude. It is bounded on the north partly by Orissa state and partly by Vizianagaram district, on south by East Godavari district, on west by Orissa state and east by Bay of Bengal. The entire agency track covers 6, 298 Km^2 i. e., 56.4% of the total geographical area of the district. The total population of Andhra Pradesh according to 2001 census is 76,210,007 of which tribals constitute 5, 024,104 accounting for 6.59% of the total population. The total population of Visakhapatnam district is 3,832,336 of which the tribals are 557, 572 (14.55%). The primitive tribal groups constitute 126,778 (3.30%). The scheduled areas extend over 31,485.34 Km^2 which is about 11% of total area of the state with 5,938 villages.

Though there are ethnomedicinal studies published in literature exclusive studies on sciatica(Kumar et al. 2017,Kumari 2020, Rao et al. 2011, Prabhat Rai and Lalramnghinglova 2010, Bhatt and Negi 2006) are not many necessitating the present investigation which is the first of its kind among the primitive tribal groups.

MATERIAL AND METHODS

Interviews were conducted with PTGs at their dwellings during 2008-2011. During oral interviews specific questions were asked and the information supplied by the informants was noted. The data were verified in different villages among the interviewers showing the same plant sample and even with the same informants on different occasions. The knowledgeable informants were taken to the field and along with the collection of plants for the voucher specimens, the use of plants as given by the tribal informants was noted. Field trips were selected in such a way so as to cover the selected areas in different seasons of the year.

The first field trip of the study area was completely devoted to get acquaintance with the local chiefs, priests, vaidhyas, herbal doctors, headman, elderly people. Subsequent field trips were meant for gathering information on medicinal plants used by them, the method and time of collection, ingredients used, mode of application, dosage and duration were recorded.

In 95 pockets of the study area, 139 vaidhyas and practitioners were consulted. Each medicinal practice was cross checked with at least 3-4 informants. It has become very difficult to elicit information on medicinal practices. Frequent visits and rapport gained their confidence on the integrity of the work and some revealed the practices with method of preparation and dosage. The voucher specimens were collected and deposited in the Herbarium, Department of Botany, Andhra University, Visakhapatnam. Plant identifications were made with the help of Flora of the Presidency of Madras (Gamble, 1915-1935) using the field observations and Flora of Visakhapatnam district, Andhra Pradesh (Rao and Kumari, 2002).

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Enumeration

The plants are arranged in an alphabetical order with their botanical name along with Family, vernacular name (VN), English name(E), voucher number, parts used, method, mode and duration of treatment.

Annona reticulata L. (Annonaceae) VN: Ramaphalam E: Bullocks heart of India 9206

*****Bark paste, *Jatropa curcas* bark paste and root pastes of *Clerodendrum viscosum* and *Solanum torvum* mixed with half tea glass of water is administered daily twice till cure.

Argyreia nervosa (Burm. *f.*) Boj. **(**Convolvulaceae) VN: Gumada mada, E: Elephant creeper
9076

*****Nut paste mixed with half tea glass of water is administered on fullmoon, half-fullmoon and again fullmoon days.

Callicarpa macrophylla Vahl **(**Verbenaceae) VN: Chinna bodiki chettu 9243

*****Root paste mixed with half tea glass of water is taken orally on full moon, half moon and full moon days.

****Commelina erecta*** L. (Commelinaceae) VN: Osso 9260

Leaf paste along with stem bark paste of *Oroxylum indicum* mixed with castor oil is applied on affected parts.

Cyclea peltata (Lam.) Hook.*f.* & Thoms. (Menispermaceae) VN: Ginnedimada E: Pataroot
9084

*****Tender leaves along with tender leaves of *Woodfordia fruticosa* is grounded and the extracted soup is given in doses of two spoonfuls twice a day for 3 days.

****Hoya pendula*** R. Br. (Asclepiadaceae) VN: Thiga pappu 9041

Leaf paste mixed with half tea glass of water is taken orally twice a day till cure.

****Litsea deccanensis*** Gamble (Lauraceae) VN: Naramamidi E: Yellow laurel 9225

Bark paste is applied on the effected parts.

Polygonum glabrum Willd. (Polygonaceae) VN: Osso 9362

*****Root paste mixed with half tea glass of water is administered twice a day for 3 days. It is also anointed over the body.

Psidium guajava L. (Myrtaceae) VN: Jama E: Guava tree 9332

*****Three tender leaves are taken without aspiration, grounded and mixed with half tea glass of water is administered twice a day for 2 days.

**** Vitis heyneana*** Roem. & Schultes (Vitaceae) VN: Mediki dumpa 9109

Tuber paste mixed with half tea glass of water is administered twice a day for 3 days.

RESULTS AND DISCUSSION

Sciatica can cause pain in the lower back that spread to the hip, buttock and leg. It is caused by pressure on the sciatic nerve from a herniated disc. Sciatica occurs most frequently in people 30 to 50 years age (Kumari, 2020).

The present paper deals with 10 species of plants covering as many genera and families used by the primitive and vulnerable tribal groups (PVTGs) of North Coastal Andhra Pradesh for curing sciatica. Habit-wise analysis showed the dominance of trees and climber with 4 species each followed by shrubs and herbs one species each. Plant part-wise analysis showed the usage of leaf in 4 practices followed by stembark and root in 2 each, nut paste and tuber in 1 each. Four plant species and 10 practices were found to be new or less known (Jain 1991, Kirtikar and Basu 2003). Seven practices involve single plant only and three each involves two and three plants.

CONCLUSION

The traditional knowledge system in India is fast depleting. There is an urgent need to inventor and record all ethnomedicinal information among the primitive and vulnerable tribal groups before it is completely lost. It is hoped that the information gathered from the PVTGs will provide further lead for developing new herbal formulations. Phytochemical investigations are needed for further use. Due to continuous use of various plant species for medicine most of them are getting eroded leading to their extinction. Therefore, it is necessary to document such knowledge and conserve them for value addition in future.

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