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ETHNOBOTANICAL SURVEY OF FOLKLORE PLANTS FOR THE TREATMENT OF JAUNDICE AND SNAKE BITES IN PUDUKKOTTAI DISTRICT OF TAMILNADU, INDIA

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ABSTRACT

An ethnobotanical survey was undertaken to collect information from rural communities about the use of medicinal plants in Pudukkottai District. Rural people use certain folklore medicinal plants for the treatment of Jaundice and snake bites. The Knowledge about the medicinal plants has been transmitted orally from generation. The investigations revealed that there are about 17 species of plants to treat Jaundice and Snake bites. Jaundice and snake bites are the common problems among the rural communities. The study indicates that the local inhabitants rely on medicinal plants for treatment.

KEY WORDS: Snake bites, Jaundice, Medicinal plants, Ethnobotany, Rural peoples.

INTRODUCTION

Ethnobotany is the scientific study of the relationships that exists between people and plants. Since the beginning of civilization, people have used plants as medicine. Perhaps since Stone Age, plants are believed to have healing powers on man. Ancient Vedas dating back between 3500 BC and 800 BC reveal many references on medicinal plants. One of the remotest works in traditional herbal medicine is “*Virikshayurveda*”, compiled even before the beginning of Christian era. Even the “*Rig Veda*”, one of the oldest Indian works written around 2000 BC highlights the use of Cinnamon (*Cinnamomum verum* Prel.), Ginger (*Zingiber officinale* Rose.), and Sandalwood (*Santalum album* L.) not only in religious ceremonies but also in medical preparations [1].

Traditional medical knowledge of medicinal plants and their use by indigenous cultures are not only useful for conservation of cultural traditions and biodiversity but also for community healthcare and drug development in the present and future [2]. However, of the estimated 350,000 plant species worldwide only a small percentage has been investigated phytochemically and an even smaller

percentage has been properly studied in terms of their pharmacological properties [3]. According a WHO estimate [4], they world health organization report about 80% of the world population relies on traditional systems of medicines for primary health care, where plants form the dominant component over other natural resources. Renewed interest of developing as well as developed countries in the natural resources has opened new horizons for the exploration of natural sources with the perspectives of safety and efficacy. The development of these traditional systems of medicines with the perspectives of safety, efficacy and quality will help not only to preserve this traditional heritage but also to rationalize the use of natural products in the health care.

Plants are used either single or in combination, as antidotes for snake venom by rural populations in India and in many parts of the world. Plants are reputed to neutralize the action of snake venom, with a plethora of plants claimed to be antidotes for snakebites in folklore medicine. Our main focus was to collect the oral information about the medicinal plants used by the local village people for treatment of jaundice and snakebite.

MATERIALS AND METHODS

Study area

Pudukkottai District was carved out of Tiruchirappalli and Thanjavur districts in January 1974. The district has an area of 4663 Sq. Km. with a coast line of 39 Kms. The district lies between 78.25' and 79.15' of the Eastern Longitude and between 9.50' and 10.40' of the Northern Latitude. It is bounded by Tiruchirappalli district in the North and West, Sivaganga district in the South, Bay of Bengal in the East and Thanjavur district in the North East. The mean annual rainfall was 1033 mm and the dry season lasts for six months (January to June), and receives less than 60 mm rainfall on monthly average.

Methods

The folklore medicinal plants enumerated, and the information about their uses, were collected during the field trips to various places of Pudukkottai district during 2009 – 2010. Information regarding medicinal aspect was gathered from persons (Mr. Chellakannu) having familiarity and knowledge with herbal medicines. The medicinal use of species was cross checked through the literature available. Plant specimens were identified with the standard floras. Voucher specimens were prepared and are housed in the Botany department, National College, Trichy District, Tamil Nadu.

RESULTS AND DISCUSSION

In this study, we focused mainly on plant species reported by the rural peoples in and around the study area for their medicinal uses. In the present investigation 17 medicinal plants are used for the treatment of jaundice and snake bites. Folklore medicinal plants are arranged in Table 1 which represents their botanical names followed by the family, vernacular name. The tribal people of western Madhya Pradesh of India used 13 plants for the treatment of Jaundice [5]. We have recorded that the aqueous paste and decoction obtained from the leaves of *Andrographis paniculata* are widely used for snakebite by indigenous people of Southern India. The bitter taste of some leaves and roots are also sometimes used for prognostic purposes. If the plant material tastes bitter, the patient is judged free from danger, but if the materials are sweet to the taste, the patient needs urgent medical attention. Dosages are repeated until the taste returns to normal. Sometimes, especially when a patient cannot open his/her mouth, the juice of the plant is administered through nostrils or eyes, or applied liberally to the head [6]. Recent efforts have been made to elucidate the efficacy of herbal remedies that are used to treat snakebites. A species that is highly regarded as a snakebite antidote throughout its distribution from the southern United States to South America is *Eclipta prostrata* (Asteraceae).

Table 1. Medicinal plants used for the treatment of Jaundice and Snakebite by local people

S.No	Botanical Name	Family	Local name	Medicinal uses
1.	<i>Acalypha indica</i>	Euphorbiaceae	<i>Muktajhuri</i>	Snake bites
2.	<i>Acyranthus aspera</i>	Amaranthaceae	<i>Nayuruvi</i>	Snake bites
3.	<i>Andrographis paniculata</i>	Acanthaceae	<i>Nilavembu</i>	Snake bites
4.	<i>Azadirachta indica</i>	Meliaceae	<i>Veempu</i>	Snake bites
5.	<i>Cadaba fruticosa</i>	Capparaceae	<i>Vizhuthi</i>	Snake bites
6.	<i>Calotropis procera</i>	Asclepiadaceae	<i>Earuku</i>	Snake bites
7.	<i>Cassia senna</i>	Cesalpinoideae	<i>Senna</i>	Jaundice
8.	<i>Eclipta prostrata</i>	Rubiaceae	<i>Bhringaraj</i>	Jaundice
9.	<i>Hemidesmus indicus</i>	Asclepiadaceae	<i>Nannari</i>	Snake bites
10.	<i>Intigofera tinctoria</i>	Papilionoideae	<i>Ogbu</i>	Jaundice
11.	<i>Moringa oleifera</i>	Moringaceae	<i>Murungai</i>	Snake bites
12.	<i>Nelumbo nucifera</i>	Nymphaeaceae	<i>Lotus</i>	Snake bites
13.	<i>Phyllanthus amarus</i>	Euphorbiaceae	<i>Kilanelli</i>	Jaundice
14.	<i>Phyllanthus emblica</i>	Euphorbiaceae	<i>Nelli</i>	Jaundice
15.	<i>Solanum trilobatum</i>	Solanaceae	<i>Tuduvalai</i>	Jaundice
16.	<i>Tephrosia purpurea</i>	Papilionoideae	<i>Fish poison</i>	Snake bites
17.	<i>Vitex negundo</i>	Verbanaceae	<i>Notchi</i>	Snake bites

CONCLUSION

The study highlighted the central role of traditional herbal medicine for the treatment of jaundice and snakebite in Pudukkottai District. Due to the growing importance of ethnobotanical studies, it is necessary to collect the informations about the knowledge of folklore medicinal plants, preserved in local communities of various parts of Tamilnadu before it is permanently lost. Having the above

facts in mind, an attempt was made to explore the medical remedies of some medicinal plants used by the local people of Vellore district in Tamilnadu for the treatment of jaundice and snakebite. These ethnomedicinal data may provide a base to start the search the new compounds related to phytochemistry, pharmacology and pharmacognosy.

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