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SURVEY AND IDENTIFICATION OF ARBORESENT MEDICINAL PLANTS AT ANDHRA LOYOLA COLLEGE, ANDHRA PRADESH USED TO CURE VARIOUS AILMENTS IN TRADITIONAL MEDICAL SYSTEMS

Dr. B. SIVA KUMARI,
Department of Botany, Andhra Loyola College, Vijayawada, Andhra Pradesh, India

Y.T PRABHU, T.PAVANI
Centre for Nano Science and Technology, Institute of Science and Technology,
Jawaharlal Nehru Technological University Hyderabad, Telangana, India

ABSTRACT

A taxonomic survey was carried out in Andhra Loyola College and around the premises of the college area of at Krishna district, Andhra Pradesh, India. For documentation of important plants and information from local aged people about their medicinal uses. A total of 24 numbers of high valued medicinal plant species of Angiosperms are reported by ethnomedicinal knowledge of people existing in the region. All these plants need to be evaluated through physiochemical and phytochemical investigations to discover their potentiality and may help in developing effective drugs for human health care.

Keywords: Survey Medicinal Plants, Ethno medicine, Andhra Loyola College. Andhra Pradesh

1. Introduction

Traditional plants have been playing an important role in the survival of the aboriginal communities, Majority of the world's population directly depends on natural resources for part or all of their livelihood, foods, nutrition, shelter, medicines and water and many other needs and this include a high proportion of the poorest groups who live in remote villages, hills and forests[1]. A huge variety of wild and cultivated plants are being used by them for the treatment of different ailments, thus a considerable amount of information on medicinal plants is available with these communities.

India has richest diversity of medicinal plants, knowledge about these medicinal plants have been accumulated in the course of many centuries[2]. Our oldest book Rig-Veda provides interesting information on the medicine. CharakaSamhita, Susruthasamhitha were published by Charakaand Susrutha great philosophers respectively during 400-500 AD[3]. They provide base of 90% herbal raw drugs used in the manufacture of drugs in traditional medical systems in like Ayurveda, Siddha, Unani andHomoeopathy systems of medicine is largely from the wild. This crude source is speedily shrinking day-by-day. Therefore, there is a need for conservation and sustainable use of medicinal plants. It is hoped that, in the future, ethnobotanymay play a crucial role increasinglyimportant role in sustainable development and conservation of biodiversity [4]. Many taxonomists have

documented the uses of various medicinal plants from different parts of Andhra Pradesh. I. Siva Ramakrishna and M. Sujathamade a note on medicinal plant diversity at Kondapallireserveforest in Andhra Pradesh [5].Rao VLN et al., reported plants of medicinal values in kolams of Adilabad district in Andhra Pradesh [6]. K. Venkata Rami Reddy et al., communication deals with the plants used to treat different ailments oflocal people ofBhiravakonahillsof Andhra Pradesh [7]. N. Chandra Babu et al., presented detail account on ethnomedicinal plants of kotiahillsof vizianagaram district, Andhra Pradesh [8]. R. K. SreeLatha Devi et al., published high valued medicinal plants of tirumalahills of Andhra Pradesh[9].

2. Materials and Methods

2.1. Study Area

A Field study was conducted in and around Andhra Loyola College. It is (commonly known as Loyola College) is a Jesuit educational institution founded in 1954. It is located in heart of the Vijayawada, Andhra Pradesh, India. The college is situated on a vast 96-acre land located between 26 8` N 79 -23`E. The College is well organized with an aim to provide green lungs for the inhabitants of Vijayawada – the commercial city of Andhra Pradesh. Gradually, it became a dynamic and vibrant, focusing on conservation of plant biodiversity. Over the years, it has made significant contributions in the field of ex situ and in situ conservation and assessment of genetic diversity of various groups of plants and its related aspects. With strengthening of scientific manpower and laboratory facilities, it expanded into areas of research. A field survey was conducted in 2011-2013 and identified huge number of plant species.

MAP

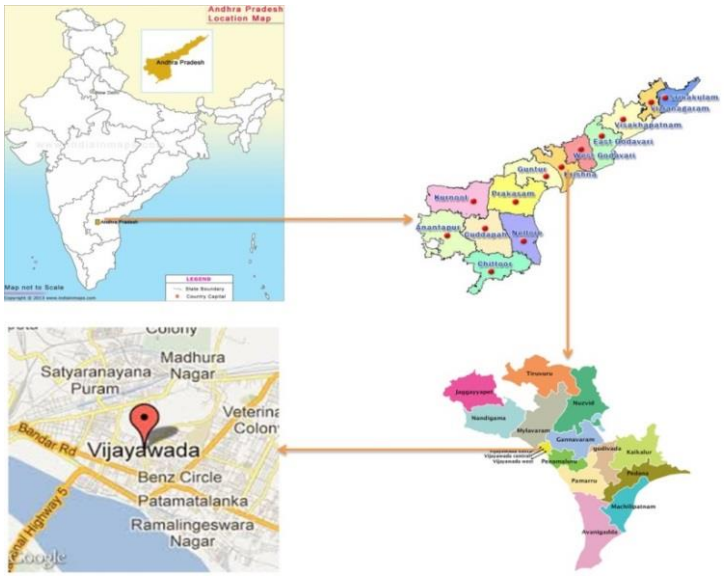

Fig 1: Location map of Investigation area

2.2 Ethno botanical Survey

A survey has been conducted from March 2011 to May 2013. Collection of medicinal plants was made in different places in different seasons, covering almost all the important vegetation areas in and around of Andhra Loyola College. The traditional medicinal information wascollected from knowledgeable local aged people with in depth interviews and discussions. The methodology, ethnomedicine data and the vernacular names were collected for documentation [10, 11, 12]. Plants specimens were collected and identified by referring to standard Flora, viz[13, 14].and three volumes of presidency of Madras.

3. Results

The present study identified 21 numbers of medicinally important high valued plant species of Angiosperms are reported. The alphabetical order of scientific name of the plants, families vernacular names, diseases are furnished with table-1.These medicinal plants exposed varied ethnomedical implications which are highly recommended by the peoples. Our paper relies on the high valued medicinal plants in and around Andhra Loyola campus.

Table 1: List of medicinal plants in and around ALC campus, Vijayawada.

S. No	Scientific name	Family	Local name	Disease
1	*AcaAcacia nilotica L*	Mimosaceae	Nallatumma	Diuretic,Leprosy, Bronchitis
2	*Acacia catechu L*	Mimosaceae	Nallasandra	Conjunctivitis, Leprosy, Leucoderma
3	*AlbiAlbezialebbeck L*	Mimosaceae	Dirisana	Diarrhea, Skin diseases, Leprosy
4	*Annonasqmosa L*	Annonaceae	Sitaphal	Anaemia, Tumors, Hysteria, Abortifacient
5	*Annonareticulata L*	Annonaceae	Ramaphal	Asthma, Abortifacient
6	*Annonamuricata L*	Annonaceae	Lakshmanaphal	Anthelmintic, Anticancerous, Antibacterial
7	*Artocarpusheterophyllus Lam*	Moraceae	Jack fruit	Astringent, carminative, Antidiarrhoea.
8	*Averrhoacarambola L*	Oxalidaceae	Carambola	Anthelmintic, Skin diseases, Antipyretic
9	*Achrassapota L*	Sapotaceae	Sapota	Skin diseases, Joint pains
10	*Aeglemarmelous L*	Rutaceae	C.N: Maredu	jaundice, vomiting, obesity
11	*Azadirachtaindica L*	Meliaceae	Vepa	Mosquito repellent, skin diseases
12	*Bombaxceiba L*	Bombacaceae	C.N:Buruga	Dysentery, Gonorrhoea, Contraceptive.
13	*Borassusflabellifer*	Palmae	Thatichettu	Cold and Cough
14	*ButeamonospermaL*	Fabaceae	Moduga	Mosquito repellent, Hair dye colour,

S. No	Scientific name	Family	Local name	Disease
13	*Calophylluminophyllum L*	Guttiferae	Ponnachettu	Pesticide
14	*Cassia tora L*	Caesalpinaceae	Tagirisa	Swellings,Respiratory diseases, Skin diseases, heart diseases
15	*Ceibapentandra L*	Bombacaceae	Silk cotton	Diuretic, aphrodisiac
16	*Ciccaacida L*	Euphorbiaceae	RachaUsari	Cough and headach
17	*DalbergialatifoliaRoxb.*	Fabaceae	Shesam	Leucoderma, Antidote to poison.
18	*Eucalyptus globules L*	Myrtaceae	Eucalyptus	Mosquito repellent
19	*Ficusreligiosa L*	Moraceae	Ravi	Antidiabetic, Asthma
20	*ElaeocarpustuberculatusRoxb*	Eleocarpaceae	Rudhraksha	Rheumatism, Typhoid, Epilepsy and Headache.
21	*Erythrinavarigata L*	Fabaceae	Badisha	Dysentery, Eye infections, Joint pains and Whooping cough
22	*Feronialimonia L*	Rutaceae	Velaga	Diarrhea, dysentery, high cough
23	*GossypiumarboreumL*	Malvaceae	PrathiChettu	Skin diseases, Leprosy, Wounds
24	*Phoenix sylvestris L*	Arecaceae	Eatha	
25	*Pongamiapinnata L*	Fabaceae	Ganuga	scabies, herpes, rheumatism
26	*Psidiumguajava L*	Myrtaceae	Jama	Antibacterial, Diuretic
27	*Punicagranatum L*	Punicaceae	Danimma	Dyspepsia, dysentery, bronchitis, Anthelmintic
28	*Kigeliapinnata L*	Bignoniaceae	Sausage tree	Wound healing, syphilis ulcers, bony syphilis
29	*Sesbaniagrandiflora L*	Caesalpinaceae	Agai	Diuretic, Antipyretic
30	*Sesbaniagrandiflora L*	Fabaceae	Avesi	Anthelmintic, febrifuge, diarrhea, Small pox, Astringent.
31	Thespesiapopulnea L	Malvaceae	Gangaraavi	Skin diseases dysentery, high blood pressure.
32	*Terminaliaarjuna L*	Combretaceae	Tellamaddi	Wounds, Heart disorders, Febrifuge, Diuretic
33	*TerminaliaChubela Retz*	Combretaceae	Karakayya	Asthma, Sore throat, eye problems, Vomiting, heart disorders
34	*Terminaliabellarica L*	Combretaceae	Tani	Asthma, Eye & Nose disorders and Heart disorders.

4. Discussion

This study showed that the local aged people are more familiar about the uses of medicinal plants. These people are depending on medicinal plants to cure disorders instead of modern drugs. Pullaiah, 1998 study illustrates Andhra Pradesh harboring 2530 angiosperms of which 1,700 species are medicinal [15]. Over all 36 medicinal plants were reported in this study, these plants are used for the treatment and prevention different types of diseases. Based on the value of medicinal importance, some are used as a whole plant, while in somedifferent portions of plants like leaves, bark, stem, flowers, fruits and seeds are used. The main ailments in the study area were cold and cough, wound healing, joint and body pains, diarrhea, Skin diseases dysentery Antidiabetic, menstrual disorder, Anthelmintic and other diseases. This information is passing from one generation to the next generation within the communities. The rural communities are very much prone to these ailments because of virtually non-existing health care, inadequate availability of pure drinking water, unhygienic attitude of the population due to illiteracy, proper sanitation etc. Documentation of these species which are enrich in medicinal values is required which can be further studied for human welfare.

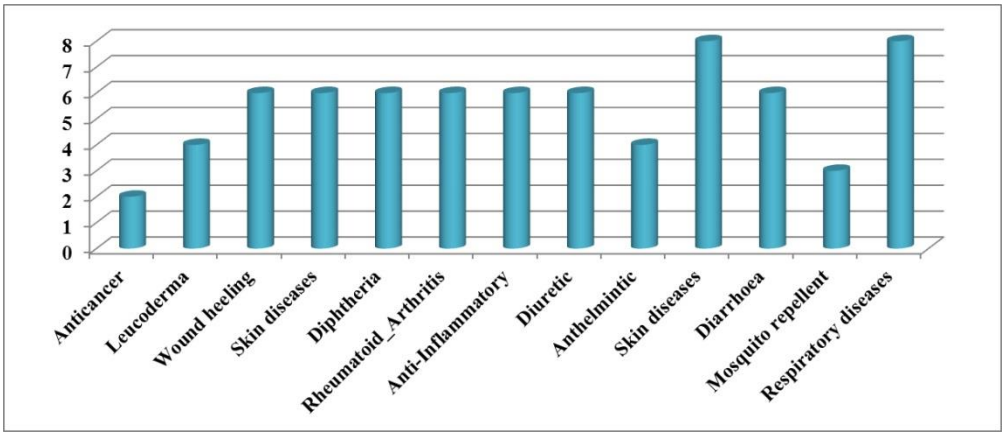

Fig 2: Traditional medicinal plants used in diseases.

5. Conclusion

The present study reveals that the native folks are having good knowledge on traditional uses of plants. But due to the commercialization of the natural resources, this knowledge may be lost in due course. Hence it is essential to study and document the ethnic knowledge, which can provide valuable information to biochemists and pharmacologists in screening of individual species and their phyto-constituents. However, the younger generation by ignoring their ancestral traditional medicine is inclining towards the allopathic medicine. Since, several bioactive compounds are being extracted from traditional medicinal plants; they are in great demand in pharmaceutical industries. The photochemical analysis and pharmacological investigations of traditional medicinally important plants with taking in view their proper conservation too, would help in developing novel drugs

to treat ailments The plants recorded here need phytochemical and pharmacological screening for their active principles and clinical trials for therapeutic action. Therefore, the present survey makes an important addition to the growing knowledge on ethnobotany and may help in developing effective drugs for human health care.

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