



Journal of Medicinal Plants Studies

Ethno botanical Study of Medicinal Plants in and around NAR Agriculture Farms area of Appannapeta village at Nalgonda district, Telangana, India

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An ethnomedicinal survey was carried out in and around NAR Agriculture Farms area of Appannapeta village at Nalgonda district, Telangana, India. For documentation of important plants and information from local aged people about their medicinal uses. A total of 21 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 phyto and pharmacochemical investigations to discover their potentiality and may help in developing effective drugs for human health care.

Keyword: Ethnomedicine, Medicinal Plants, Agriculture Farms, Telangana.

1. Introduction

Therapeutic plants have been playing an important role in the survival of the ethnic communities, More than half of the world's population directly depends on natural resources for part or all of their livelihood, foods, nutrition, 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 large number of wild and cultivated plants are being used by them for the treatment of various ailments, thus a considerable amount of information on medicinal plants is available with these communities.

India has rich diversity of medicinal plants, knowledge of these medicinal plants have been accumulated in the course of many centuries^[2]. Rigveda, which is one of the oldest books supplies curious information on the medicine Charaka Samhita, Susruthasamhitha were written by Charaka and Susrutha respectively during 400-500 AD^[3]. The supply base of 90% herbal raw drugs used in the manufacture of Ayurveda, Siddha, Unani & Homoeopathy systems of

medicine is largely from the wild. This wild 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, ethnobotany may play an increasingly important role in sustainable development and biodiversity conservation^[4].

Different botanists 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 Kondapalli reserve forest 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 of local people of Bhiravakona hills of Andhra Pradesh^[7]. N. Chandra Babu *et al.*, presented detail account on ethnomedicinal plants of kotia hills of vizianagaram district, Andhra Pradesh^[8]. R. K. SreeLatha Devi *et al.*, published high valued medicinal plants of tirumala hills of Andhra Pradesh^[9].

2. Materials and Methods

2.1. Study Area

Field study was conducted in and around NAR Agriculture Farms area of Appannapeta village at Nalgonda district, Telangana, 170 Km from Hyderabad. NAR Agriculture Farms located at 16°53'51.9"N 79°46'24"E and attractive hillocks located to the north of the NAR Agriculture Farms. The Appannapeta village mainly supports itself through agriculture, especially rice farming. The forest vegetation around NAR Agriculture Farms nearby hills is also well known for medicinal plants and trees.

2.2 Ethno botanical Survey

A survey has been conducted from April 2012 to May 2013. Collection of medicinal plants was made in different places in different seasons, covering almost all the important vegetational areas in and around of NAR Agriculture Farms. The ethnomedicinal information was

collected from knowledgeable local aged people with indepth 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].

3. Results

The present study includes 21 numbers of high valued medicinal plant species of Angiosperms are reported. The alphabetical order of scientific name of the plants, their families local names, diseases are furnished with table-1. These medicinal plants exposed varied ethnomedicinal implications which are highly recommended by the aged peoples. Our paper relies on the high valued medicinal plants in and around of NAR Agriculture Farms.

Table 1: List of medicinal plants in and around NAR Agriculture Farms area of Appannapeta village.

| S.NO | Plant Name | Family | Local Name | Disease |
|------|-----------------------------|----------------|-----------------|--------------------------------------|
| 1 | <i>Annona squamosa</i> | Annonaceae | Sethafalam | Joint pains |
| 2 | <i>Azadirachta indica</i> | Meliaceae | Vepa | Control of mosquitoes, Skin diseases |
| 3 | <i>Borassus flabellifer</i> | Arecaceae | Thati chettu | Cold and Cough |
| 4 | <i>Vitex negundo</i> | Verbenaceae | Vavili | Body pains |
| 5 | <i>Lawsonia inermis</i> | Lythraceae | Gorinta | Wound healing |
| 6 | <i>Ficus religiosa</i> | Moraceae | Ragi | Antidiabetic, Asthma |
| 7 | <i>Ficus hispida</i> | Moraceae | Medipandu | Galactagogue |
| 8 | <i>Cassia siamea</i> | Caesapiniaceae | Thangedu | Antidiabetic |
| 9 | <i>Hibiscus rosasinesis</i> | Malvaceae | Mandhara | Hair diseases |
| 10 | <i>Calotropis gigantea</i> | Asclepiaceae | Tella jilledu | Abdominal disorders |
| 11 | <i>Butea monosperma</i> | Fabaceae | Modhuga | Menstrual disorder |
| 12 | <i>Achyranthes aspera</i> | Amaranthaceae | Uttaraene | Anemia |
| 13 | <i>Tridax procumbens</i> | Cichorieae | Gaddi chamanthi | Dog bite |
| 14 | <i>Eclipta prostate</i> | Cichorieae | Guntaguragura | Hair tonic |
| 15 | <i>Tribulus terrestris</i> | Zygophyllaceae | Palleru kaya | Gohnarrae |
| 16 | <i>Ziziphus oenoplia</i> | Rhamnaceae | Pariki | Wound healing, Stomachache |
| 17 | <i>Cleome gynandra</i> | Cleomaceae | Vaminta | Head ache |
| 18 | <i>Abrus precatorius</i> | Leguminosae | Gurivinja | Pregnancy |
| 19 | <i>Acacia nilotica</i> | Fabaceae | Nallathumma | Skin diseases, Burns |
| 20 | <i>Anisochilus carnosus</i> | Lamiaceae | Karpuravalli | Cold and Cough |
| 21 | <i>Tinospora cordifolia</i> | Menispermaceae | Tippatega | Fever |

4. Discussion

This study showed that the local aged people are more familiar about the uses of medicinal plants. These people 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]. Overall 21 medicinal plants were reported in this study, these plant species are used for the treatment and prevention of many ailments. The main ailments in the study area were cold and cough, wound healing, joint and body pains, stomach pain, antidiabetic, menstrual disorder, and other diseases. This information is passing from one generation to the next generation within the communities. Documentation of these species which are enrich in medicinal values is required which can be further studied for human welfare.

5. Conclusion

The current study reveals that the native folks are having good knowledge on traditional uses of plants. But due to the modernization, 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. 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 ethnomedicobotany and may help in developing effective drugs for human health care.

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