

Study on Availability of Various traditionally used Medicinal plants in Basara, Nirmal district, Telangana, India.

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Abstract: Since ancient times, plants are being used as medicines, foods, agrochemicals and pharmaceuticals by large number of tribal, rural and urban people. The present study revealed that a total of 27 medicinal plants, belongs to 23 families are recorded for the treatment of different diseases viz. asthma, arthritis, cough, fever, diabetes, dysentery, gastric and indigestion, jaundice, toothache, skin diseases, etc. Some important medicinal plants widely used are *Achyranthes aspera*, *Balanites aegyptiaca*, *Cymbopogon citrates*, *Mimosa pudica*, *Withania somnifera*, *Catharanthus roseus* and etc. Some of the species reported in the present paper are in critical conditions due to deforestation, various activities of human population for their survival and other developmental activities such as agriculture, urbanization etc. as a result of which the rich habitats are gradually depleting day by day.

Keyword: Medicinal plants, Traditional medicine, Basara, Ethno medicine, Telangana

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I. INTRODUCTION

Since the existence of human civilization, plants and their by products are being used by large number of population living in urban as well as rural, and remote areas for various purposes such as medicine, healthcare, food, clothing, shelter, agriculture, agrochemicals, pharmaceuticals, narcotics, etc. In the beginning, the sources of medicine were exclusively from plants. More than 7,000 plants are used in Indian Systems of Medicine such as *Ayurveda*, Homoeopathy, *Unani*, *Siddha*, etc. The tribals have developed their own pharmacopoeia of their traditional knowledge about the medicinal uses of plants by trial and error methods. This pharmacopoeia has become cultural heritage of our nation. It is necessary to prepare and preserve the digital data base of the traditional medicine for the benefit of present and future generations. A good deal of research work has been done on the inventorisation and documentation of traditional knowledge, especially plant based medicines used by the various people of India including Basara of Nirmal district, Telangana state.

II. STUDY AREA

Basar or **Basara** is a census town in Nirmal district in the state of Telangana, India. Basara is popular in India because of its Saraswathi temple, which is the only of its kind in all of Indi. Basar is located at 18°53'N 77°57'E It has an average elevation of 579 metres (1899 feet). It is located on the banks of River Godavari and is famous for its Saraswathi temple in India. This temple is one of the very few temples of Goddess Saraswati in South India. As of 2001 India census, Basar had a population of 3834. Males constitute 56% of the population and females 44%. Basara has an average literacy rate of 72%, higher than the national average of 59.5%; with 61% of the males and 39% of females literate. 16% of the population is under 6 years of age.

III. MATERIAL AND METHODS

For the collection of information on plants used as traditional medicine by the Basara of Nirmal district, Telangana state. people a questionnaire was prepared and before interviewing them Prior Informed Consent was taken from knowledge providers. For survey and collection of information and voucher plant specimens, field visits to settlements of Nizamabad people were undertaken. During the field visits, data on the medicinal uses of plants was collected from elderly persons, local medicine men called Natu vaidyam of the tribal settlement at Basara of Nirmal district, Telangana state.

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Table (1). Medicinal plants used by Basara area people

S. No	Plant name	Local name	Family	Mode of administration and uses
1.	<i>Achyranthes aspera</i> L.	Uttareni	Amaranthaceae	Whole plant is crushed, smashed in water and half cup of it is taken for cough, cold and fever
2.	<i>Balanites aegyptiaca</i> (L.) Del.	Gara chettu	Balanitiaceae	Fruit powder is taken twice a day for cough, cold and fever
3.	<i>Cymbopogon citratus</i> (DC.) Stapf.	Nimma gaddi	poaceae	Decoction of leaves is taken twice a day for cough, cold and fever
4.	<i>Eclipta prostrata</i> L.	Guntagalagara	Asteraceae	Leaf paste is applied on wound and cuts; leaves are chewed and swallowed twice a day for cough, cold and fever
5.	<i>Withania somnifera</i> (L.) Dunal	Ashwagandha	Solanaceae	Plant powder in one cup of water is taken once a day for rheumatism/arthritis
6.	<i>Zingiber officinale</i> Rose.	Allam	Zingiberaceae	Powder of allam (<i>Apium graveolens</i>) fruits and seeds without seed coat of <i>sagargota</i> are taken in equal portion for rheumatism/arthritis
7.	<i>Aegle marmelos</i> (L.) Corr.	Maredu	Rutaceae	Leaf juice is applied on bitten part and squeezed leaves are eaten to avoid nausea
8.	<i>Tinospora cordifolia</i> (Wild.) Miers ex Hook.f.&Thom	Tippa theega	Menispermaceae	Dried stem powder with lukewarm water is given.
9.	<i>Bauhinia racemosa</i> Lamk.	Are chettu	Ceasolpinaceae	Used for snake bite Fruit paste and leaf juice is applied on stung part.
10.	<i>Abelmoschus moschatus</i> (L.) Wt. & Arn. ex Wigh	Adavi bhenda	Malvaceae	Used for snake bite Root paste is applied on affected part.
11.	<i>Brassica juncea</i> (L) Czern. & Coss.	Sarsapam	Brassicaceae	Plant used for scorpion bite. Juice of leaf, stem and branches is applied on stung part
12.	<i>Mirabilis jalapa</i> L.	Uttarashi pulu	Nyctaginaceae	Used for burns/boils. Root paste is applied on boils and leaf is tied on the boils.
13.	<i>Ailanthus excelsa</i> Roxb	Pedda maanu	Simarubiaceae	Bark decoction of <i>Maharukh</i> along with <i>Madhuca longifolia</i> and <i>Moringa oleifera</i> in equal proportion is given once a day
14.	<i>Catharanthus roseus</i> (L). G.Don.	Billa ganneru	Apocynaceae	Leaf infusion is given once a day.
15.	<i>Clitoria ternatea</i> L. var. <i>pilosa</i> Wall. Ex. Baker	Shanka pushpi	Fabaceae	During leucorrhoea, roots are pounded in water and one glass of it is taken.
16.	<i>Mimosa pudica</i> L	Atti patti	Mimosaceae	Roots are pounded in cold water and taken. Whole plant juice is put in nose once a day.
17.	<i>Semecarpus anacardium</i> L.f.	Jeedi chettu	Anacardiaceae	Bark used for cure of fresh wounds
18.	<i>Terminalia arjuna</i> Willd.	Tella maddi	Combretaceae	Used for leucorrhoea/menstrual complaint. Bark infusion of <i>ain</i> , <i>biba</i> and <i>tiwas</i> (in equal proportion) is taken.
19.	<i>Cicer aeriantinum</i> L.	Senagalu	Fabaceae	Used for stomach disorder/stomach-ache. Young leaves are collected in the morning, squeezed to get sour juice (<i>aamb</i>) which is given orally once a day.
20.	<i>Wrightia tinctoria</i> R. Br.	Palakurche	Apocynaceae	Used for stomach disorder/stomach-ache. Bark infusion is given twice a day.
21.	<i>Aloe barbadensis</i> Mill.	Kalabanda	Liliaceae	Used for stomach disorder/stomach-ache. Piece of leaf is warmed and tied on stomach once or twice a day.
22.	<i>Sterulia urens</i> Roxb.	Kavili chettu	Sterculiaceae	Plant used for tonic/general weakness. Gum is eaten as it can be mixed in water.
23.	<i>Dioscorea pentaphylla</i> L.	Adavi ginusutiga	Discoreaceae	Plant used for tonic/general weakness. Tubers are eaten raw twice a day till weakness is reduced.
24.	<i>Chlorophytum borivillianum</i> Sant. & Fern.	Sallogadda	Liliaceae	Plant used for tonic/general weakness. Fresh tuberous root or one teaspoonful of root powder is taken once a day.
25.	<i>Ficus religiosa</i> L.	Raavi chettu	Moraceae	Plant used for contraceptive/antifertility. Just before one week of menses, receptacles are taken along with local liquor.
26.	<i>Foeniculum vulgare</i> Mill.	Jee;a karra	Apiaceae	Plant used for contraceptive/antifertility. Fruit powder is taken in one glass of water once a day in the morning after menses.
27.	<i>Curcuma longa</i> L.	Pasupu	Zingiberaceae	Plant used for contraceptive/antifertility. Turmeric is taken with one glass of water twice a day.

IV. RESULTS AND DISCUSSION

During the survey, plant and plant parts used as medicine by the *Basara people* in Nirmal district of Telangana state. for the treatment of various ailments have been explored. Analysis of the data revealed that a total number of 27 species belonging to 23 families of flowering plants and ferns are used as medicine in the healthcare treatment (Table 1). The number of plant species used by the local people for curing some of the important and common diseases, shown in the parenthesis, are as follows-stomachache/abdomen pain, cough, cold, fever, rheumatism/arthritis, snake bite, scorpion bite contraceptive, acidity/ulcer, menstrual complaints, dysentery, abortifacient, wounds, lactation in woman, piles, diabetes, burns, boils, bone fracture, etc. The local people settlements are generally in remote areas of forest and there is prevalence of common diseases like stomach disorders, cough, cold, fever, dysentery, eye problems, wounds, boils, scorpion bite, snake bite, bone fracture, etc. The prevalence of diseases can be attributed to unhygienic conditions, poor quality of food, lack of clean drinking water and continuous exposure to the environment. In addition, people do not get in time and proper treatment even for common diseases. Therefore, for the treatment, they mostly rely on easily available traditional herbal medicines. It is also observed that the dose or administration of the drug, i.e. quantity of extract, decoction, infusion or powder to be taken is based only on approximation, and is not standardized. Therefore, to prove efficacy of any crude drug, it is very essential to standardize the dosage or administration and also authenticate the sourcing plant species of the drug. There is also need for maintaining precise clinical records of the study of plant extract, adverse drug reaction if any, etc. which will help in drug standardization.

V. CONCLUSION

This study has highlighted the indigenous knowledge on importance of medicinal plants used by local people and Practitioners of Basara people. The data indicate that there is still valid and active knowledge of the therapeutic uses of wild plant species growing in the region. Herbal remedies provide essential health care, which the village people of this region utilize to immense benefit. Although these remedies do not find esteem compared to modern medicine, their efficacy is claimed to be high in depth study, mainly experimental with clinical efficacy of these drug preparations is essential in many cases. There is an urgent need for documentation of this irreplaceable knowledge. It may be lost when traditional cultures collapse with advent of modernization.

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