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Exploration of Ethnomedicinal Values of Imperative Plants of District Gujrat, Pakistan

Abdul Majeed, Mishbah Kanwal, Shaista Shaukat, Romana Javed and Rabia Ilyas

Department of Botany, University of Gujrat, Pakistan

Abstract: Ethnomedicinal surveys were conducted from April 2010 to December 2010 in the vicinity of University of Gujrat (UOG), Pakistan. Imperative plants of spring and autumn seasons were documented. Information on 37 plant species was collected comprising 16 herbs, 12 shrubs and 9 trees belonging to different families. The documented information comprises botanical and common names, habit, family, part used and ethnomedicinal uses. It was concluded that all plants are divine healers for human kind. The medicines obtained from these plants are considered as safe and secure. There is a need to create awareness among the community about the usefulness of these plants. It will help to save the plants from exploitation and extinction.

Key words: Etnomedicinal uses · Gujrat · Flora · Medicinal uses

INTRODUCTION

Ethnic and rural people of Pakistan have preserved a large bulk of traditional knowledge of medicinal uses of plants growing around them. This knowledge is transferred to succeeding generations through traditional stories and is extensively used for the treatment of common diseases and conditions. Medicinal plants have always been the principle sources of medicine in Pakistan since ancient times and also presently they are becoming more popular. There has been a rapid extension of allopathic system of medical treatments in the world during the past century [1]. However, these drugs have adverse side effects and people are going back to herbal healers for safe and secure drugs. Moreover, the herbal drugs are cheaper, easily available and have no side effects. It is evident that many valuable herbal drugs have been discovered by knowing that particular plant was used by the ancient folk healers for the treatment of some kind of ailment [2].

Gujrat a well known district of Pakistan is located between two famous rivers, the Jhelum and the Chenab River. It is also known as one part of the golden triangle of Gujranwala diviosn. It is surrounded on the northeast by Jammu and Kashmir, northwest by the Jhelum River which separates it from Jhelum District, east and southeast by the Chenab River separating it from Gujranwala and Sialkot districts and on the west by District of Mandi Bahauddin. District Gujrat is spread over an area of 3,192 square kilometres and comprises the two tehsils, Kharian and Sarai Alamgir. The District Gujrat lies between 32° to 35° North latitudes and 73° 45' East longitudes. This district has moderate climate. During peak summer, the daytime temperature shoots maximum up to 45°C but the hot spells are relatively short due to the proximity of the Azad Kashmir Mountains. During the winter minimum temperature may fall below 2°C [3].

Pakistan is blessed with a variety of wild plants which are being used for medicinal and aromatic purposes. The properties and proper uses of some of these plants are well known in the community and many plants have still to be explored for their medicinal values [4]. In recent years, folk medicine has lost its attraction among the young generation and they are dependent on western medicine [5].

Herbal medicines are assumed to be of great importance in the primary healthcare of individuals [6] and communities in many developing countries as the herbal medicines are comparatively safer than synthetic drugs. Plant-based traditional knowledge has become a recognized tool in search for new sources of drugs and neutraceuticals [7]. In this present paper, an ethnomedicinal survey has been conducted for the collection of information regarding ethnomedicinal uses of herbal plants.

Corresponding Author: Abdul Majeed, Department of Botany, University of Gujrat, Pakistan. E-mail: khalidbotany@inbox.com.

MATERIALS AND METHODS

Survey: In order to collection of information from local community, 4-visits were arranged during spring and winter seasons during 2010. The area focused was premises of University of Gujrat (UOG), Pakistan. The focus people were local farmers, plant collectors and Hakims.

Questionnaires and Interviews: Information was collected by filling out the Questionnaire forms having information for the local names, part used and ethnomedicinal uses of plants. Interviews were conducted and recorded on these forms. This data was compared with "The Flora of Pakistan" [8].

Preservation of Plant Specimens: Plant samples were collected and preserved on the herbarium sheets and these sheets were preserved in Herbarium of University of Gujrat (UOG), Pakistan, for reference.

RESULTS AND DISCUSSION

The information obtained for ethnomedicinal uses of plants has been given in Table 1. A total of 37-plant species were documented and these were arranged with botanical and common names, family, part used and ethnomedicinal uses. There were 16-herbs, 12- shrubs and 09 tree species documented on the basis of their importance and medicinal uses. It was noted that all plants have imperative role in our daily life. Local community is dependent on these plants for curing of different disorders and aliments.

Since ancient times, people had knowledge of medicinal plants. Several hundred plants have been used as herbal remedies in indigenous system of medicines [9]. Local people and practitioners with traditional knowledge collected these medicinal plants. Most were not involved in the trade of medicinal plants. The local people had a little knowledge about the species and proper time of collection [10]. There are considerable economic benefits

Table 1: List of medicinal plant with their Ethnomedicinal Uses

Sr #	Botanical Name	Common Name	Habit	Family	Parts Used	Ethnomedicinal Uses
				HERBS		
1	*Achyranthes aspera* L.	Puth Kanda	Herb	Amaranthaceae	Whole plant	Useful in pneumonia, cough and kidney stone. Herb is diuretic and is very helpful in urinary tract infections.
2	*Aloe vera* L.	Kawar gandal	Herb	Liliaceace	Fleshy leaf	Used in digestive and skin problems, mostly used in cosmetics.
3	*Althea rosea* L.	Gul-e- Khairo	Herb	Malvaceae	Whole plant	Used in cough, asthma and jaundice.
4	*Asparagus racemosus* Willd.	Satmuli	Herb	Liliaceae	Roots	Tonic, aphrodisiac, diuretic, carminative, appetizer, antispasmodic, mental and rheumatism.
5	*Catharanthus roseus* (L.) G.Don	Sada Bahar	Herb	Apocynaceae	Leaves	Useful in diabetes
6	*Chenopodium album* L.	Bathu	Herb	Chenopodiaceae	Whole Plant	Plant is laxative and used in hepatic disorder and enlarged spleen.
7	*Cichorium intybus* L.	Kasini	Herb	Asteraceae	Whole plant	Plant could purify the blood and liver. Useful in diarrhea, enlargement of the spleen, fever, vomiting, cancer of the uterus, for tumors, cancer of the breast and face.
8	*Cuminum cyminum* L.	Zeera	Herb	Apiaceae	Seeds	It is strong stimulant, Used for treating colic and dyspeptic headaches, flavor & digestion.
9	*Cyperus papyrus* L.	Papyrus	Herb	Cyperaceae	Roots	Used in paper-making, eye diseases, ulcers & for cancer cures.
10	*Fumaria indica* L.	Shahatra	Herb	Fumiraceae	Whole plant	Used in aches and pains, diarrhea, fever, influenza and liver complaints.
11	*Hypericum perforatum* L.	St. John's wort, Bulhsana	Herb	Hypericaceae	Whole plant	Herb is used to reduce depression, insomnia and headache.
12	*Malva sylvestris* L.	Mohkhari	Herb	Malvaceae	Whole Plant	It is used to treat mucosal irritations of the mouth, throat and jaundice.
13	*Mentha longifolia* L.	Gangli Podina	Herb	Lamiaceae	Whole plant	Plant is stimulant having cooling effects, It is useful in headaches & insect bite treatments.
14	*Ocimum basilicum* L.	Niazbo	Herb	Lamiaceae	Leaves and Seed	Useful in skin infections, cold and cough
15	*Opuntia humifusa* L.	Chitar thorr	Herb	Cactaceae	Whole plant	In treatment of wounds, sores, snake bites, rheumatism, lung ailments.
16	*Tribulus terrestris* L.	Gukhroo	Herb	Zygophyllaceae	Whole plant	Used in depression, liver, kidney, heart disease, dizziness, liver, premature ejaculation & headaches

Table 1: Continued

			SHRUBS			
17	*Achras zapota* L.	Chiku	Shrub	Sapotaceae	Fruit, seed, bark	Dried seeds are used as diuretic and useful in fevers.
18	*Adhatoda vasica* Nees.	Bhaker	Shrub	Acanthaceae	Whole plant	Useful in cough and asthma.
19	*Agave Americana* L.	Kantala	Shrub	Agavaceae	Whole plant	Plants are used in toothache and dropsy.
20	*Carissa carandas* L.	Kronda	Shrub	Apocynaceae	Fruit & Root	Plant is used in stomach disorder, skin diseases and burning sensation.
21	*Cassia absus* L.	Kattukollu	Shrub	Caesalpiniaceae	Seeds & leaves	Useful in blood pressure, ring worm and other skin Diseases.
22	*Dodonaea viscose* Jacq.	Sanatha	Shrub	Sapindaceae	Leaf	Used to treat sore throats, colds, digestives disorders, stomach acidity and skin allergy.
23	*Euphorbia milii* L.	Common Euphorbia	Shrub	Euphorbiaceae	Whole plant	Used as a cure for cancer and skin problems.
24	*Mimosa pudica* L.	Chhui mui	Shrub	Leguminosae	Roots, leaves and flower	Plant is bitter, acrid, cooling, vulnerary, alexipharmic and used in treatment of biliousness, leprosy, dysentery, vaginal and uterine complaints, fatigue, inflammations, asthma, leucoderma and blood diseases
25	*Murraya koenigii* L.	Curry pata	Shrub	Rutaceae	Leaves	Used as a tonic and a stomachic. Leaves are used in rice for flavors.
26	*Plumbago Zeylanica* L.	Cheeta Lakri	Shrub	Plumbaginaceae	Leaves	Useful in chest Pain and female problem (menstrual disorders).
27	*Punica granatum* L.	Anar	Shrub	Punicaceae	Exocarp of fruit	Dysentery and menstrual irregularities.
28	*Withania somnifera* L.	Ashghand	Shrub	Solanaceae	Whole Plant	Used in asthma, Rheumatic disorders, insomnia, fever, constipation and eye diseases, painful swellings and ulcer.
			TREES			
29	*Bauhinia purpurea* L.	Kachnar	Small tree	Fabaceae	Whole plant	Plant is antibacterial, antidiabetic, analgesic, anti-inflammatory, anti-diarrheal & thyroid hormone regulating activity.
30	*Cassia fistula* L.	Amaltas	Small tree	Fabaceae	Fruit, Leaves, Bark	Relieves pain, reduces fever, lowers cholesterol and stimulates digestion.
31	*Acacia Arabica* Lam.	Kikar, Babul	Tree	Leguminosae	Leaves, fruits, gums	Used in eczema, conjunctivitis, diarrhea, ulcers & as coagulant. Gum is a demulcent.
32	*Acacia modesta* Wall.	Phulai	Tree	Leguminosae	Stem, bark	Gas trouble, cleaning teeth, dental disorders & dental problems
33	*Alstonia scholaris* L.	Saitan/ alstonia	Tree	Apocynaceae	Bark, Leaves	Used in skin diseases, fever, malaria, diarrhea, dysentery, ulcers, wounds & cough.
34	*Azadirachta indica* A.Juss.	Neem	Tree	Meliaceae	Leaf, bark & flower	Used for blood purification, detoxifies, bronchitis, cough, diabetes, fever, jaundice, malaria, obesity, parasites, syphilis, thirst, tumors and vomiting
35	*Mimusops elengi* L.	Molsari	Tree	Sapotaceae	Bark, Flower Fruits, Seeds.	Useful in urinary tract infections, diarrhea, dysentery, wound, ulcers, headache, dental caries and constipation.
36	*Moringa oleifera* L.	Sohanjana	Tree	Moringaceae	leaves, roots, seed, bark, fruit, flowers	Used in intestine infections, skin disease, breathing disease, headaches & migraine, arthritis, hair fall & diabetes.
37	*Salvadora oleoides* L.	Wan, pilu	Tree	Salvadoraceae	Fruit, flower, leaf & root bark	Useful in cough, purgative, Vesicant, enlarged spleen, rheumatism & fever

in the development of indigenous medicines and in the use of medicinal plants for the treatment of various diseases [9, 10].

CONCLUSION

It was conclude that all plants have medicinal importance but there is a need to explore their properties and develop awareness among the community.

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