International Conference on Recent Innovations in Science, Agriculture, Engineering and Management
University College of Computer Applications Guru Kashi University, Bathinda, Punjab (India)
20th November 2017, www.conferenceworld.in ISBN: 978-93-86171-80-1

A STUDY ON SOME ETHNOMEDICOBOTANICAL FLORA AVAILABLE IN DISTRICTS OF HISAR AND FATEHABAD (HRY) HAVING PROPERTIES OF CURING RHEUMATISM

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ABSTRACT

Ethnomedicobotanical study and documentation of data based on utilization of plants can help in preserving our traditional knowledge about plants. This paper includes 17 plants belonging to various families. These plants are used mainly for curing rheumatism naturally without any side-effects mainly distributed in Hisar, Fatehabad and adjoining areas. Alongwith curing rheumatism, these plants have other medicinal properties also.

Key Words : Traditional knowledge, ethnobotanical, rheumatism, medicinal properties

I. INTRODUCTION

The intimate relationship between the human and plant world has evolved over generations of experience and practices. The term 'Ethnobotany' denotes the total relationship between man and vegetation. It is also considered as branch of economic botany which deals with the role of plants in life and culture of humans.

In the name of development, as people moved away from Mother Nature, they became more prone to diseases, decay and degeneration. Most of the present day diseases are life style diseases. However, there is again a revival of drugs being obtained from vegetable sources at any time in history. Medicinal plants are now in a 'come-back phase' within the last two decades seeing people shifting their focus back to the forgotton traditional natural remedies.

The term ethnobotany was given by Harshberger in 1895. In India, Dr. S.K. Jain, known as Father of Indian Ethnobotany, established ethnobotany as new research area of interest. Dr. E.K. Janaki Aromal initiated researches on ethnobotany in Botanical Survey of India.

Plants have amazing power to cure any disease from its root without any side effect. Plants contain many useful phyto-chemicals which make them useful for medicinal purpose (Gupta *et al.*, 2009). These active principles are dietary fibres, alka- loids, flavonoids, saponins, amino acids, steroids, peptides, etc. Ethnobotanical studies give them a scientific base for further advanced heights. The primary aim of the study is to report various

 ISBN: 978-93-86171-80-1

ethnobotanical uses of plants and try to generate awareness among the people about importance of the medicinal plants.

II. MATERIALS AND METHODS

The present study and its exploration depend upon the survey and inspection. The information and findings have been presented primarily based upon the work and interviews taken with local people alongwith fieldwork. Data were collected from Vaid, Hakims, Sadhu, Ojha, Pansari, gardeners (malis), teachers of schools, colleges and universities of the region, elders of Gaddi-lohars, Banjara jati and local people (folk) of the region who have knowledge of therapeutic uses of medicinal plants. This study focuses particularly on plants used for medicines with the knowledge of the involved people. This has been done by interviewing the local people with specific knowledge of traditional medicinal plants. Plants have been collected from the field under the guidance of advisers. These plants have been identified taxonomically. All data collected has been shared with local people and a separate database has been prepared with therapeutic uses of plants in districts Fatehabad and Hisar of Haryana. Broadly, accepted essential methods have been employed throughout the research, namely, (1) Physical methods (2) Survey methods (3) Investigation methods

The present research conducted survey for the collection of specimen plants, identification on the basis of available literature and interaction with knowledgeable people during the different seasons. Ethnobotanical information was collected by using standard techniques such as direct interview with local people, direct observation, and discussion with traders (Cunningham, 2001).

III. STUDY AREA

Hisar

Hisar is located at 29.09^0 N 75.43^0 E in western Haryana. It has an average height of 215 m (705 ft) above sea level. The region is part of the alluvial Ghaggar-Yamuna plain and its southern and western areas mark a slow transition to the desert. Ghaggar and Drishadvati Rivers once flowed through the city. According to tectonic map, the total area of the district is around 3,983 km^2. The district lies on Delhi-Lahore Ridge and no earthquake of any significance has originated in the zone in the past.

Fatehabad

The district of Fatehabad is bounded by $28^0$48'15" to $29^0$17'10" North latitudes and $76^0$28'40" to $77^0$172'45" East longitude covering an area of 2490 sq. km. It is surrounded by Punjab state in the north, Jind district in the east, Sirsa district in the west, Hisar district and Rajasthan state in the south. The total area is about 2490 km^2.

The district is located in the Indo-Gangetic alluvial plains. Large flat plain is blocked by the randomly located sand dunes along the Ghaggar river.

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IV. ENUMERATION

Plants species alongwith their medicinal uses are enlisted below:

1st Plant

Botanical name*: – Achyranthes aspera* L.

Family: - Amaranthaceae

Local name : – Ulta kanda (ver), Latjira (H)

***Ethnomedicinal* uses :**

- Root decoction (20 ml) with gurh is taken orally twice a day until cure for piles.
- Decoction of roots (15 ml) taken orally t.d.s. in typhoid, rheumatism, gangrene, headache, and in piles.

2nd Plant

Botanical name*: –Allium sativum* L.

Family: - Liliaceae

Local name : – Lahsan (ver), Lahsoon (H), Garlic (E)

***Ethnomedicinal* uses :**

- 5 – 6 bulblets boiled in mustard oil are applied locally in rheumatism, backache, joint problems, skin diseases, and cough.
- Bulblets (7 – 10) are tied in mal – mal cloth around the neck of the children against cold and cough.

3rd Plant

Botanical name*: - Alstonia scholaris* (L.) R. Br.

Family*: -* Apocynaceae

Local name: – Saptparna (ver), Shaitan or chattiyan (H), Indian devil or Dita tree (E)

***Ethnomedicinal* uses :**

- Milky latex or sap is employed on boils, ulcers, rheumatic swelling, and other skin eruptions.
- Poultice of warm young leaves tied on ulcers.

4th Plant

Botanical name*: – Argemone mexicana* L.

Family:- Papaveraceae

Local name: –Satyanashi (ver), Firangi dhatura or Kandiali (H), Yellow prickly poppy or Mexican poppy (E).

***Ethnomedicinal* uses :**

- Leaf paste used locally for scorpion sting and scabies, rubbed raw on the site of irritation.
- The decoction of whole plant with mustard oil (50 ml) employed locally for Rheumatism.

5th Plant

Botanical name*: - Bacopa monnieri* (L.) Pennell.

Family: - Scrophulariaceae

Local name : – Sarasvati or Brahmi(ver), Barami (H), Water hyssop (E)

 ISBN: 978-93-86171-80-1

Ethnomedicinal uses:–

- Decoction of aerial parts (5 ml) taken twice a day in accordance with the needs of patients in rheumatoid arthritis.
- Warm little bit crushed leaf tied over abdomen, in abdominal pain, and urinary inflammation.

6th Plant

Botanical name*: – Brassica campestris* L.

Family: - Cruciferae

Local name: – Sarsam (ver), Sarson (H), Mustard (E)

Ethnomedicinal uses: –

- It is used as Potherb (saag). Ointment made with oil (5-10ml) and the ashes of a postcard used to remove ringworm completely.
- Mustard oil (5 ml) boiled with garlic bulblets (3-5) are applied in rheumatism, joint pain, backache, headache earache, and other ear problem.

7th Plant

Botanical name*:- Calotropis gigantea* (L.) W. T. Aiton

Family: - Asclepiadaceae

Local name : – Safed akta (ver), Safed aak (H), Giant milk weed (E)

Ethnomedicinal uses: –

- Poultice of warm leaves mixed with castor oil (3-5 drops) tied topically once in a day until cure in rheumatism.
- Latex is applied locally in leprosy, insect bites and snakebite.

8th Plant

Botanical name*: – Calotropis procera* (L.) R. Br.

Family: - Asclepiadaceae

Local name : – Ak (Akta) (ver) , Aak (H), Madar milk weed (E)

Ethnomedicinal uses: –

- Latex is used in the treatment of leprosy, dropsy, and rheumatism.
- Fresh flowers are taken orally for the treatment of snakebite by banjara (Ghumuntu) jati.

9th Plant

Botanical Name*: - Capparis decidua* (Forsk.) Edgew

Family: - Capparidaceae

Local name: – Kair (ver), Karil or Kurel (H), Caper or Berry (E)

Ethnomedicinal uses:–

- People of this area use the twig as datun for their tooth problems.
- Decoction of root and root bark is given in rheumatism, dropsy, and intermittent fever.

 ISBN: 978-93-86171-80-1

10th Plant

Botanical Name*: – Datura metel* L.

Family: - Solanaceae

Local name : – Dhatura (ver), Sada dhatura (H), White thorn apple (E)

Ethnomedicinal uses: –

- Leaf paste applied externally in ulcer, rheumatic, rheumatism, mumps, and other swellings of limbs.
- When it is applied as paste, it provides relief from itching and detoxifies skin.

11th Plant

Botanical Name*: – Eucalyptus lanceolatus* (L.) Herit.

Family: - Myrtaceae

Local name : – Safeda (ver), Nilgiri or Safeda (H), Eucalyptus tree (E)

Ethnomedicinal uses:–

- The oil (5 g), obtained from leaves mixed with olive oil (5 g) applied locally in the treatment of rheumatism.
- Fresh leaf paste applied on minor wounds and it is slightly slow to skin over.

12th Plant

Botanical Name: – *Lantana camara* L. Moldenke

Family: - Varbenaceae

Local name : – Khatmithi (ver), Ghaneri (H), Wild sage or Lantana(E)

Ethnomedicinal uses:–

- Leaf powder is applied externally for wounds and minor cuts.
- Decoction of fruits is used twice a day for two months, in rheumatism, especially in swelling of muscles and joints.

13th lant

Botanical Name*: – Mimosa pudica* L.

Family: - Fabaceae

Local name : – Chhui mui (ver), Lajwanti (H), Touch-me-not or sensitive plant (E)

Ethnomedicinal uses: –

- Root paste tied on the affected site in joint pain.
- Juice of the leaves (5 ml) taken with cow milk twice a day until relief in piles.

14th Plant

Botanical name*: – Origanum vulgare* L.

Family: - Lamiaceae

Local name : – Marua (ver), Marwa (H), Wild or sweet marjoram (E)

Ethnomedicinal uses: –

- Oil can be applied topically in toothache, and rheumatism.
- Rub aerial parts of plant and smell it, which is useful in asthma, and against bacterial infections.

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15th Plant

Botanical name: *- Prosopis cineraria* (L.) Druce.

Family:- Fabaceae

Local name : – Khejri, Sangri (ver), Jand or Jandi or Sami (H), Kandi or Indian khejri tree or Prosopis tree (E)

Ethnomedicinal uses : –

- Decoction of bark (20 ml) taken orally twice a day in rheumatism and cough.
- The smoke of wood (*Sami Samidha*) and leaves are beneficial in eye ailments.

16th Plant

Botanical name*:- Ricinus communis* L.

Family: - Euphorbiaceae

Local name : – Arand (ver), Erand or Arind (H), Castor bean (E)

Ethnomedicinal uses: –

- Juice of the leaves applied locally thrice in a day in pinworms.
- Warm poultice applied externally in Rheumatic inflammations.

17th Plant

Botanical name*:- Ziziphus mauritiana* Lam.

Family: - Rhamnaceae

Local name : – Badber or Beri (ver), Ber or Beri (H), Indian jujube (E)

Ethnomedicinal uses: –

- Pulp of the fruit is employed locally in pimples and epistaxis.
- Juice of the root bark (10 ml) applied locally for alleviating pain and in rheumatism.

V. RESULTS AND DISCUSSION

Findings clearly show that even though most of the people of the region know little about ethnobotanical medicinal plants, they still depend on them for their primary health care needs. Although, the medical facilities in the rural area were not found up to the mark during this pursuit yet a large number of people living in rural area are healthier, sturdy and less prone to the bacterial, viral and fungal infection than their urban counterparts. The findings further reveal that urban population is certainly more dependent on allopathic system of medicine. Urban people are more entangled into the web of allopathic medicines and their side-effects than rural people. The reason is obvious. The rural population of this area still depend on traditional medicine or herbal medicine to a great extent. The people treat their ailments with the help of ethnobotanical medicinal plants (EMPs) and their products. They prefer herbal medicine over synthetic medicine. Amazingly, a leaning toward traditional medicine has been observed in urban population and the ethnomedicine practice is regaining its past glory slowly.

 ISBN: 978-93-86171-80-1

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