



Traditional Use of Some Plants of Hamirpur District of Himachal Pradesh for the Treatment of Jaundice, Hepatitis and Other Liver Disorders

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ABSTRACT: Hamirpur district is the smallest district of Himachal Pradesh due to its area. The district surrounded by thick forest area which is rich in diverse vegetation. The pattern of the use of the local medicinal herbs for the treatment of various diseases and ailments has been an old practice. But the people of the district still depends upon the uses of local plants for their primary health problems treatment. This paper provides the information about the traditional uses of 28 plants of Hamirpur district for the treatment of Jaundice, Hepatitis and liver disorders.

Key words: Traditional Uses, Pharmaceutical, phytochemical, jaundice, Hepatitis.

I. INTRODUCTION

Hamirpur district is the smallest district which possesses unique medicinal wealth and diverse flora. The pattern of the use of the local plants for the treatment of various health disorders by local people has been an old practice. But the peoples of remote area this region still depends up on plant based house hold remedies for the primary health care. The old villagers of this area has a huge amount of traditional knowledge associated with the use of these plants. Due to favorable climatic conditions, this region act as medicinal hotspots for the growth of various types of medicinal plants and herbs, which provide raw material for pharmaceutical, phytochemical, food, flavorings and cosmetic industries (Kaur *et.al*, 2011).

Jaundice is mostly appears in the form of liver diseases such as hepatitis or liver cancer. It may also indicate leptospirosis or obstruction of the biliary tract. Jaundice is the yellowish staining of the skin and sclera (the whites of the eyes) which is caused by increase in the level of bilirubin chemical in the blood. The change in the colour of the skin and sclera depends up on the bilirubin level. When level of bilirubin is mildly elevated, they turned yellowish in colour. If the level of bilirubin is high, they tend to be brown. Jaundice may result from various diseases or conditions that affect the liver, like Hepatitis A, Hepatitis B, Hepatitis C, Hepatitis D, Hepatitis E, Autoimmune hepatitis, Liver cirrhosis, Liver cancer, Hemolytic anemia and Malaria.

The present paper reveals that the folk uses of plants by local people of remote area of Hamirpur district for the purpose of contributing to the knowledge

and the preservation of a part of national cultural heritage. But the uses of medicinal plants which forms the basis of new-plant based medicinal treatment. Such type of research is mostly rare in the Hamirpur district therefore this region was selected as local people are mainly depends up on the traditional uses of the plants to meet their daily requirements, for earning their livelihood local and herbal medicine for curing various disorders. This paper records 28 plants with their botanical names, family, local names, parts used and their medicinal uses for the treatment Jaundice and liver disorders.

II. MATERIAL AND METHODS

Study Area

Hamirpur district is situated between 76°18' – 76°44' East longitudes and 31°52'30" North latitudes. The area is hilly covered by Shivalik range and the elevation varies from 450-1,100 meters. This region possesses diversity in flora and rich medicinal wealth various which are used for the treatment of Jaundice, hepatitis and other liver disorders.

Methodology

The ethnobotanical surveys were conducted throughout the study period in different area of Hamirpur district, among the local people. Collected plant specimens during these surveys were identified and preserved in the form of herbarium The data collected through field work was compared with literature on the medicinal plants of Himachal Pradesh; some literature of ethnobotany have also been considered like Yadav and Suresh (2003), Parkash and Aggarwal (2010) and Rawat and Kharwal (2011).

The 28 medicinal plants belonging to 23 families were reported which are used to cure Jaundice, hepatitis and other liver disorders. The methods used to collect the data:

- (a) Plants were collected and preserved in the form of herbarium.
- (b) The information was collected from the older persons of the area.
- (c) Interviews were conducted using structured questionnaire prepared for medicinal practitioners.
- (d) Plants were identified and nomenclatured with the help of Choudhary H.J. and Wadhwa Flora of Himachal Pradesh and Indian Flora of B.S.I.

III. RESULTS AND OBSERVATIONS

1. Botanical Name: *Adiantum capillus veneris* L. Sarhaj

Family: Adiantaceae

Local Name: Dooman tuli

Part/parts used: Leaves

Medicinal uses: Decotion of fresh leaves which is taken two times in a day for 7 days for the treatment of jaundice

2. Botanical Name: *Aegle marmdos* (L) Corr.

Family: Rutaceae

Local Name: Bil, Bil patri

Part/parts used: Leaves and fruit

Medicinal uses: The decoction of leaves and unripe fruit is used for treatment of jaundice and other liver disorder.

3. Botanical Name: *Argemone maxicana* L.

Family: Papaveraceae

Local Name: Bharbhand

Part/parts used: Whole plant

Medicinal uses: Yellow sap of plant is used for treatment of Jaundice affections, hepatitis and other liver disorders.

4. Botanical Name: *Berberis lyceum* Royle.

Family: Berberidaceae

Local Name: Kashmal, Daruhaldi

Part/parts used: Root

Medicinal uses: Decotion of root with honey for two weeks are used for the treatment of jaundice

5. Botanical Name: *Colocia esculenta* (L.) Schott

Family: Araceae

Local Name: Arbi kuchawari

Part/parts used: bulb

Medicinal uses: The bulb of this plant cooked as vegetable And dried bulb is cut in to pieces and then crushed to make powder which is used for the treatment of jaundice.

6. Botanical Name: *Cuscuta reflexa* Roxb.

Family: Convolvulaceae

Local Name: Akash bel

Part/parts used: Whole plant

Medicinal uses: The decoction of whole plant made with aromatics is used in indurations in liver.

7. Botanical Name: *Cucumis sativus* L.

Family: Cucurbitaceae

Local Name: Kheera

Part/parts used: Fruit

Medicinal uses: Fresh fruit is cut into small pieces and is used three times in a day for three weeks for treatment of jaundice, hepatitis and other liver disorder.

8. Botanical Name: *Euphorbia hirta* L.

Family: Euphorbiaceae

Local Name: Doodhli

Part/parts used: Stem and Leaves

Medicinal uses: Stem and leaf extracts are used in jaundice.

9. Botanical Name: *Hordeum vulgare* L.

Family: Poaceae

Local Name: Jou, joui

Part/parts used: Seeds

Medicinal uses: Powder of dried seeds mixed in sugar solution is used in case of jaundice, hepatitis and other liver disorders.

10. Botanical Name: *Justacia adhatoda* L.

Family: Acanthaceae

Local Name: Basuti

Part/parts used: Roots

Medicinal uses: Decotion of its roots is taken by the patients for one month in the treatment of jaundice

11. Botanical Name: *Morus alba* L.

Family: Moraceae

Local Name: Chitta Toot

Part/parts used: Fruit

Medicinal uses: Juice extracted from its fruit is used for the treatment of jaundice, hepatitis and other liver disorders.

12. Botanical Name: *Morus nigra* L.

Family: Moraceae

Local Name: Kala Toot

Part/parts used: Fruit

Medicinal uses: Fresh fruits are crushed. One cup of the juice is given to the patient twice a day for two weeks.

13. **Botanical Name:** *Phyllanthus emblica* L.

Family: Euphorbiaceae

Local Name: Amla

Part/parts used: Fruit

Medicinal uses: Powdered dry fruit is mixed with sugar and water for the treatment of jaundice.

14. **Botanical Name:** *Phyllanthus niruri* L.

Family: Euphorbiaceae

Local Name: Bhoomi Ambla

Part/parts used: Roots

Medicinal uses: Decotion of roots is recommended for two weeks in the treatment of Jaundice, hepatitis and other liver disorders.

15. **Botanical Name:** *Picrohiza kurooa* Royle ex. Benth

Family: Scrophulariaceae

Local Name: Karru, Kutki

Part/parts used: Rhizome

Medicinal uses: Rhizome powder is used in the treatment of liver troubles and jaundice.

16. **Botanical Name:** *Pistacia integerrima* Stewart ex.

Family: Anacardiaceae

Local Name: Kakar Singhi

Part/parts used: Fruit

Medicinal uses: Juices of fresh fruits daily for seven days in the treatment of Jaundice, hepatitis and other liver disorders.

17. **Botanical Name:** *Prunus domestica* L.

Family: Rosaceae

Local Name: Alubhukhara, Palam

Part/parts used: Fruit

Medicinal uses: Water extract of the fruits is recommended for the treatment of Jaundice, hepatitis and other liver disorders.

18. **Botanical Name:** *Punica granatum* L.

Family: Punicaceae

Local Name: Daran

Part/parts used: Fruit and Seeds

Medicinal uses: Dried seed powder mixed in water is taken for one month for the treatment of jaundice. Dried rind powder is mixed in sugar solution for the treatment of jaundice, hepatitis and other liver disorders.

19. **Botanical Name:** *Raphanus sativus* Linn.

Family: Brassicaceae

Local Name: Mooli

Part/parts used: Roots and Fleshy part

Medicinal uses: Decotion of its roots is recommended for the treatment of jaundice. Fleshy part and its juice is used for treatment of jaundice.

20. **Botanical Name:** *Saccharum officinarum* L.

Family: Poaceae

Local Name: Ganna, kamandi

Part/parts used: Stem

Medicinal uses: Juice extracted from stem considered good remedy for jaundice.

21. **Botanical Name:** *Sesamum indicum* Linn

Family: Pedaliaceae

Local Name: Til

Part/parts used: Leaves

Medicinal uses: The leaves powder is used treatment of liver complaints.

22. **Botanical Name:** *Solanum nigrum* Linn

Family: Solanaceae

Local Name: Makoi

Part/parts used: Whole plant

Medicinal uses: Freshly prepared extract of the plant is effective in the treatment of cirrhosis of liver.

23. **Botanical Name:** *Solanum surattense* Burm F

Family: Solanaceae

Local Name: Kantkari

Part/parts used: Fruit

Medicinal uses: Fruit is diuretic and is considered useful in controlling of stone in bladder.

24. **Botanical Name:** *Tamarindus indica* L.

Family: Caesalpiniaceae

Local Name: Imli

Part/parts used: Fruit, root

Medicinal uses: Decotion of its roots is used in the treatment of Jaundice, hepatitis and other liver disorders. Fruit also act as a remedy for the treatment of jaundice.

25. **Botanical Name:** *Taraxacum officinale* Weber.

Family: Asteraceae

Local Name: Dulal, Dudhli

Part/parts used: Rhizome

Medicinal uses: Decotion of boiled rhizome is used for the treatment of Jaundice, hepatitis and other liver disorders.

26. **Botanical Name:** *Tinospora cordifolia* (willd) Miers

Family: Menispermaceae

Local Name: Giloe, Gulje

Part/parts used: Stem

Medicinal uses: Fresh stem decotion is considered good for the treatment of jaundice and seminal weakness.

27. **Botanical Name:** *Viola serpens* Wall.

Family: Violaceae

Local Name: Bhanaksha

Part/parts used: Whole plant

Medicinal uses: Decotion of dried plant material with sugar is taken daily for more than fifteen days for treatment of Jaundice, hepatitis and other liver disorders.

28. **Botanical Name:** *Woodfordia fruticosa* (L) S. Kurz.

Family: Lythraceae

Local Name: Dahvi

Part/parts used: Flowers

Medicinal uses: Water extract of its flowers is recommended for the treatment of jaundice.

IV. DISCUSSION

The present study revealed the information of plants used for Jaundice, Hepatitis and other Liver disorders. These plants are arranged in alphabetical order; with their family, local name, part/ parts used and folk use. Schutles (1962) outlined the role of ethnobotanist in the search of new medicinal plants. So, this was a paper on subject of ethnobotany on a specialized line i.e. medicinal plants. Archeological plant remain, notes on plant collections and herbaria, literature survey, field studies, Jain (1964) wrote on the role of botanist in folk lore research. He writes that folklore research involve the study of all aspect of intellectual and material culture of indigenous or backward people. Arora (1987) described ethnobotany and it's role in the domestication and conservation of native plant genetic resources. He gave the detail account of this important area where ethnobotany have still a great to do. Brij Lal *et. al* (1996) described the plants used as ethnomedicine and supplement food by Gaddis of Himachal Pradesh, India. Kapur (1996) highlighted the tradionally important medicinal plant of Bhaderwah hills. Chauhan (1999) described the medicinal and the aromatic plants of Himachal Pradesh. Singh S.K. (1999) worked on the ethno-botanical study of the useful plants of the Kullu district in Himachal Pradesh. Singh and Kumar (2000) studied the ethnobotanical wisdom of Gaddi tribe in the western Himalya (Himachal Pradesh). Sharma *et al* (2003) gave an account on the commercially importance of medicinal and aromatic plants of Parvati Valley (Himachal Pradesh). Brij Lal and Singh (2008) find out the indigenous herbal remedies to cure skin disorders by natives of Lahaul Spiti, Himachal Pradesh. Prakash & Aggarwal (2010) highlighted the traditional uses of medicinal plants of

lower foot-hills, Himachal Pradash. Kaur, *et al* (2011) studied the uses of plants in control of different diseases in Mandi district, Himachal Pradesh. Kharwal and Rawat (2012) studied ethnobotanical uses of herbal shampoo of Shivalik hills, Himachal Pradesh.

The present study reveals the folk uses of 28 plants belonging to 23 families for the cure of Jaundice, Hepatitis and other Liver disorders. The predominant families are euphorbiaceae with 3 plant species, poaceae, moraceae and solanaceae with 2 plant species, and other families with one plant species used for Jaundice, Hepatitis and other Liver disorders. Out of 28 plant species, fruit of 10 plant species, root of 5 plant species, leaves and whole plant of 4 plant species, stem of 3 plant species, rhizome of 2 plant species, bulb, seeds, flowers, fleshy part of one plant species are used for the treatment of Jaundice, Hepatitis and other Liver disorders.

V. CONCLUSION

The present ethnobotanical observations revealed that the local people of Hamirpur district of Himachal Pradesh particularly those living in remote and high altitude areas are largely depends upon the local plant resources to meet their daily requirements. In addition to these 28 plant species, the local people also use many other plant resources for earning their livelihood and for primary health care. These plants plays important role in their lifestyle and hence have always been revered.

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