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Ethnobotanical Survey of Medicinal Plants Used by the People of District GANDERBAL JAMMU AND KASHMIR

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ABSTRACT

The documentation of biodiversity and its traditional uses by the ethnic communities have assumed priority due to the rampant loss of biodiversity, the looming threats of biopiracy and the increasing Patent wars on bioresources. The medicinal plants are valuable and are used for the production of various drugs. These plants are traditionally used to cure various diseases. The present research work is based on a survey conducted on traditional uses of common medicinal plants of district Ganderbal, Jammu and Kashmir. The local especially old people use medicinal plants for various ailments. In the present research only medicinal plants, their local names and their medicinal uses were interviewed and presented. The information was obtained from local informants having Knowledge about medicinal plants.

Keywords: Biopiracy, medicinal plants, biodiversity, documentation, Ganderbal.

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INTRODUCTION

Plants have anchored to the mother earth long before man has set his feet and it is said that God had endowed them with materials for survival of man and animals long before these creatures were made by Him. From the very earliest days of civilization, mankind has turned to plants for healing, a tradition that has survived the arrival of modern medicine and found new strength at the end of 20th century. Even today 80% of the world population relies on traditional plant medicine. According to Ayurvedic Materia Medica, there is no plant on earth which does not gave medicinal value. India is amongst the most important medicinal collection centers of world. Over 500 million people receive the benefits of traditional knowledge with nearly 460,000 practitioners of traditional system of medicine therefore it occupies the premier position in the use of herbal drugs utilizing nearly 2500 plant species of different formulations [6]. Over 7500 species of plants are estimated to be used by 4635 ethnic communities for human and veterinary health. The indigenous medicinal information of plants is helpful to ecologists, pharmacologists, taxonomists, watershed and wildlife managers in civilizing the prosperity of area, besides listing the traditional uses [2]. During the last century, various studies have been carried out to document the ethno-medicinal use of plant species growing in the region albeit. Most of these research efforts have been restricted towards chronicling of the medicinal plants used for treatment of human ailments [1, 3, 7].

District Ganderbal of Jammu and Kashmir is about 25km from summer capital Srinagar and lies at 34.23 (3413’59.880°N) latitude and 74.779 (7446’59.880 ° E) longitudes, with altitude 1568m above mean sea level. Medicinal plants (herbs, shrubs and trees) used by local people are medicinally valuable. The present report gives an account of the indigenous medicinal plants used by local people and Hakims.

MATERIALS AND METHODS

Before starting the field work of medicinal uses of plants and the study area, general information about that area was collected from the local people. A preliminary survey was done along with a local person having knowledge of plants used traditionally as medicines. Periodic field surveys for ethnomedicinal exploration were undertaken during the March-May 2011 and August-October 2011 in the district Ganderbal particularly in the area of Kangan, Dugwan, Dodinar, Lar, Saloora Nambal, Wanipora and Haran plantation. The local herbalists, old and experienced people were taken to the fields to identify the medicinal plants used in folklore. Each of the plant material was recorded in the field note book. To bring an element of accuracy, the information was cross checked with elderly people and local herbalists. The plant specimens collected from the area of survey were also authenticated from a registered institute and identified from the literature. Medicinal plant species of the area have been enumerated below:

List of traditionally used medicinal plants in different areas of Dist. Ganderbal is given below as per:-

Scientific name (SN)
Local name (LN)
Family (F)
Parts used (PU)
Medicinal value (MV)

1. SN: Allium cepa
   LN: Gande
   F: Lilliaceae
   PU: Bulb
   MV: Fresh bulbs are mixed with paddy chaff (poi) to stimulate the estrus cycle of the cows and ewes during breeding season, fresh juice of onion bulb is applied externally on boils to help ripen them, break them and evacuate pus, also applied hairs 2-3 times a day for 10-20 days for growth of healthy hair.

2. SN: Arisaema jucquemontii
   LN: Haput gugej/ Haput makai
   F: Araceae
   PU: Tuber
   MV: The tubers 2-3 are made into paste mixed with human saliva and applied on painful burns or boils, with beneficent results in blisters, pimples.

3. SN: Allium sativum
   LN: Rhoon
   F: Lilliaceae
   PU: Bulb
   MV: About 3 cloves of garlic are rubbed 3 times a day regularly for 5 days is very useful to regenerate hairs on the area of baldness appearing suddenly (Alopeciaerate).

4. SN: Amaranthus caudatus
   LN: Leesa
   F: Amaranthaceae
   PU: Leaves, Flowers
   MV: The extract of leaves and inflorescence are used. The extract is used in expectorants and in fever.

5. SN: Althaea officinalis
   LN: Saze posh
   F: Malvaceae
   PU: Leaves, Flowers and Roots
   MV: The dried flowers are kept closed in a tin for 10-40 days and made into a “KHAMBER”. The roots are crushed to make powder; these are used to treat throat swelling, infection, asthma, cough and urinary irritation.

6. SN: Artemisia absinthium
   LN: Teethwan
   F: Asteraceae
   PU: Whole plant
   MV: The plant is crushed and extract is obtained and is used for abdominal pain, chronic fever.

7. SN: Berberis aristata
   LN: Kawe dach
   F: Berberidaceae
   PU: Roots
   MV: The bark of root is dried and crushed to make powder; the powder is taken orally and is useful in Jaundices, back pain, weakness and fractures.

8. SN: Brassica rapa
   LN: Tilgogul
   F: Brassicaceae
   PU: Seeds
   MV: The seed oil is applied daily after washing hair as tonic, enhances hair growth, prevent dandruff and hair falling.

9. SN: Cichorium intybus
   LN: Gungli hand
   F: Asteraceae
   PU: Leaves and roots
   MV: The extract of root is mixed with water and sugar then given to patient 2 spoonfuls daily for 15-20 days to cure typhoid.

10. SN: Cannabis sativa
    LN: Bang/ Charis
    F: Cannabinaceae
    PU: Leaves, Stem
    MV: The leaves brushed and smoked by people. The leaves and stem is crushed and made into a powder mixed with ghee or oil to make paste and extract is obtained to cure diarrhea, skin diseases, cholera, rheumatism, wormicide and narcotic drugs.

11. SN: Datura stramonium
    LN: Datur
    F: Solanaceae
    PU: Leaves and fruits

MV: The leaves and seeds are dried for making powder then extract is prepared and is mixed with oil or ghee to make paste and is used to cure intoxicating asthma, teeth pain, loss of hair, anti-dandruff, antiseptic and narcotic drugs.

12. SN: Dioscora deltoidae
    LN: Krech
    F: Dioscoreaceae
    PU: Roots
    MV: The juice of root tuber is taken in the evening in the treatment of roundworm. It is also used to alleviate constipation, and to cure diseases such as asthma and arthritis.

13. SN: Euphorbia wallachii
    LN: Dub
    F: Euphorbiaceae
    PU: Leaves and fruits
    MV: It is used for purgative and digestive, decoction given in gout juice is used for nerve troubles and dropsy, also applied to warts and skin infection.

14. SN: Iris hookeriana
    LN: Mazar mund
    F: Iridaceae
    PU: Whole plant
    MV: Yields an essential oil used in perfumery, rich source of ascorbic acid. Extract of roots is used to treat frozen feet. It is also grown in grave yards as a rodent repellant.

15. SN: Juglans regia
    LN: Doon kul
    F: Juglandaceae
    PU: Leaves, bark, roots and fruits
    MV: Extract of leaves and bark are used in wound healing. Extract of fruit exocarp (50gm) is boiled thoroughly in one lt. of milk till the milk remains 50ml then extract is used as hair dye turns grey hair into natural shiny black. Leaves are beneficial for skin disorders, irritation of eyes, stimulate poor appetite, conjunctivitis, excessive sweating and blepharitis. The exterior of the walnut crust is beneficial for chronic diarrhea, anemia, hair loss and baldness. The inner bark is used for gum problems, heal constipation, slow digestion, as stimulant for the liver and cure skin diseases. The oil prepared from the walnut is beneficial for women suffering from menstrual dysfunction.

16. SN: Malva neglecta
    LN: Sochal
    F: Malvaceae
    PU: Whole plant

MV: The leaves are used as vegetables. They are also made into decoction or paste by crushing and mixing with ghee or oil. The leaves are also crushed and extract is obtained to cure stomach cramps, nerve tonic, wounds, swelling, cough, ulcers and appetizers.

17. SN: Malva sylvestris
    LN: Gur sochal
    F: Malvaceae
    PU: Whole plant
    MV: The root is made into powder or extract of whole plant is used in stomach cramps, diarrhea and dysentery.

18. SN: Mentha arvensis
    LN: Pudina/ pudni
    F: Lamiaceae
    PU: Leaves and stem
    MV: An extract, decoction or paste of plant is used in asthma, cough, rheumatism, indigestion and diarrhea. The powder of leaves is dipped in tea daily for 1-2 weeks time to cure gastroenteritis.

19. SN: Nymphaea stellata
    LN: Buni posh/ bum posh
    F: Nymphaeaceae
    PU: Whole plant
    MV: The extract of flowers is prepared and is used to treat indigestion, anti-hepatotoxic and anti-diabetic.

20. SN: Podophyllum hexandrum
    LN: Wan wagon
    F: Podophyllaceae
    PU: Fruits, seeds and roots
    MV: The juice of fruit and seed extract is used. The root is also crushed mixed with warm water and filtered, the filtrate is then used to cure diarrhea, tumor, heart abnormalities and chronic constipation.

21. SN: Rheum emodi
    LN: Pumba-chalan
    F: Polygonaceae
    PU: Roots and leaves
    MV: The root is powdered and sometimes paste is also prepared and used in rheumatic, pain and wound healings.

22. SN: Rumex acetosa
    LN: Abij/ abjie

F: Polygonaceae
PU: Whole plant
MV: The plant is used as a vegetable in juvenile stage. The plant is dried and crushed to make powder which is mixed with oil or ghee to make paste and applied to cure chest problems, astringent, hardness of muscles, asthma and skin diseases.

23. SN: Saussurea costus
LN: Kuth
F: Asteraceae
PU: Whole plant
MV: The extract of root is prepared. The root is also crushed and powdered which is useful in cough, asthma, joint pains and insecticides.

24. SN: Taraxacum offcinale
LN: Hand
F: Asteraceae
PU: Whole plant
MV: The herb is used as vegetable at its juvenile stage. The herb is also crushed extract is obtained which is used in chronic cough, internal ulcers, asthma, infection, abdominal swelling, stomach cramps, acidity and urine irritation.

25. SN: Uratica dioica
LN: Soi
F: Urticaceae
PU: Whole plant
MV: The whole herb is crushed and extract is obtained from it, sometime the crushed herb is made into paste which is used to cure fever, fractures, stomach pain, wounds, dandruff, skin infection, paralyzed limbs and nose bleeding.

RESULTS AND DISCUSSION

The present investigation provides an ethnobotinical data of the medicinal plants used by the people of district Ganderbal to cure various ailments. The twenty five mentioned plant species belong to eighteen families. Most of the plant species are wild and few of them are cultivated and used as vegetables. By reviewing the literature, we found that no such study has been done in the district Ganderbal. So we select this particular district for our study. The present study shows that the district Ganderbal has a great diversity of medicinal plants with different medicinal properties. Ethno medicinal survey of various districts of Jammu and Kashmir has been reported by different workers [5, 8, 9].

Plants and their extracts have immense potential for the management and treatment of various diseases. The phytomedicines for various diseases are not only cheap and affordable but are also purportedly safe as hypersensitive reactions are rarely encountered with the use of

these agents. There is no conservation programme for the valuable source of medicinal flora. Efforts need to be made to conserve the endangered plants and need to pay attention to aware the people for the potential of medicinal plants to cure various diseases and to protect them to become endangered or extinct.

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