

Investigation of ethnomedicinal plants used by rural population of Hathras district Uttar Pradesh (India)

OP Singh¹, AK Singh²

¹ Department of Biology, S Chandra Mahila Mahavidyalay Ashti, Gadchiroli, Maharashtra, India

² Department of Botany RBS College, Agra, Uttar Pradesh, India

Abstract

Hathras district belong to the division of Aligarh, Uttar Pradesh, (India) is inhabited by a large number of rural population depends on the ethnomedicinal plants remarkably important medicinal source also. Present investigation relates to the plant based medicine used by the rural population and other communities of Hathras district for eliminating and controlling many diseases. Through investigation a total number of 15 plants species have been recorded which are used to cure various diseases. Some Indian Pharmaceutical companies, Vaidhyas, Dai and rural population are also use these plants for preparation of various Ayurvedic, Unani, Herbal, Homeopathy medicines etc.

Keywords: rural population, medicinal plants, Hathras, district, Uttar Pradesh

Introduction

Hathras district is located in the western part of Uttar Pradesh. It is bounded by Etah, Aligarh, Mathura and Agra, district. Hathras district is lies between 20.4⁰ - 29⁰ North Latitude and 76⁰ - 77⁰ East Longitude covering a geographical area of the district about 176 sq.km. and surrounding areas of the district about 76.5 sq.km. About 398 hectare land area of the Hathras district is covered by forest. Hathras district divided into four tehsils: Sikandra Rao, Hathras, Sadabad, Sasni and seven Blocks: Sasni, Sikandra Rao, Hathras, Sadabad, Mursan, Sahpau and Hasayan etc. The temperature during the summer month reaches to its peak upto about 47.5⁰C in month of june and in winter season the temperature upto 5.6⁰C in month of january. Ethnomedicinal plants have been playing an important role in survival of rural population and other communities. The rural population races throughout the world have developed their own medicinal knowledge. Present investigation carried out on the Hathras district of Uttar Pradesh (India). The information about the different Ethno medicinal plants has been collected from "Vaidhyas" Dai" and Rural people" respectively. They have a strong belief that the information of plant medicine should be kept secret to else lose efficacy and as such they do not like divulge these information in the district Hathras Uttar Pradesh India.

Materials and Methods.

Extensive survey of Ethno medicinal plants were collected from Hathras district was carried out the rural areas. A number of Vaidhyas and Dai were connected. Consultations were also made with other persons having a knowledge in concerned field. Medicinal informations were collected only from the local people, Vaidhyas and Dai of Hathras district Uttar Pradesh, India, during 2019 - 2020. Efforts have been made to see the plant wild condition and collection of plant specimens with their reproductive parts. These plant specimens were preserved according to the conventional herbarium techniques (Mitra, 1974) ^[1], (Jain, 1989) ^[5], (Siddiqui, et.al. 1995) ^[8], (Kirtikar, et.al.1918) ^[7], (Singh &

Subramanyam, 2008), (Kumar, 2017) ^[2], were followed during collection, preservation of the plant specimens. A large number of flora were consulted of Flora of Dehradun (Kanjilal, et al. 1956) Flora of British India, vol.1 - 7 (Hooker, 1872-1897) ^[4] & Glossary of Medicinal plants (Chopra, et al. 1956) ^[3] for proper identification of collected plant specimens of Hathras district.

Result and Discussion

Present investigation reported 15 plants species from Hathras district of Uttar Pradesh (India). For each ethnomedicinal plants species following information was provided, botanical name, plant parts used, method of preparation as inventory. From this study it was found that the rural populations are still used in medicine to cure the different types of human diseases.

Investigated ethnomedicinal plants from Hathras district U. P. (India)

Acacia nilotica Linn. (Desi babul)

The leaves are used for curing Dhat disease a claimed by Shephard community.

Alhagi Pseudalhagi Desv. (Jawasa)

Plants are laxative, diuretic, expectorant infusion and diaphoretic oil is extracted from it which is used for rheumatism, Flowers are used for piles as claimed by Khatik community.

Argemone mexicana Linn. (Peeli katailli)

Its latex is used in dropsy, Jaundice and eye troubles. Such statement has been given by villagers and specially Teli community.

Amaranthus spinosus Linn. (Kante wali chaulai)

Leaves and rots are boiled and given to children as laxative and applied as emollient poultice to clain has been made by Ghosi community.

Adhathoda vasica Nees. (Aroosa)

Its extract from leaves is used for cough, chronic bronchitis, and asthma. Such statement has been made by high class group of Brahmins.

Achyranthus aspera Linn. (Latjeera)

The seeds are given in cutaneous disease, where as the flowering spikes are given in Hydrophobia. The ash of whole plant is used in the treatment of cough and flowering spikes and seeds are used against snake bite. Such findings has been reported by snakecharmar community.

Ageratum conyzoids Linn. (Osari)

Leaves osari are used for cuts and sores and external application in ague a kind of malarial fever as claimed by Tribal community.

Abutilon indicum (Linn.) sweet. (Kanghi)

Seeds are aphrodisiac, Laxative, demulcent and infusion of roots are used in snake bite and scorpion stings. Such claimed has also been made by Snakecharmer community.

Acalypha indica Linn.

Roots and leaves have laxative properties juice of the leaves is considered an efficient emetic that is a medicine for causing vomiting. A poultice of fresh leaves is useful on ulcers advocated by Midwives community.

Agave wightii Dr. & Prain. (Kuwar buti)

Its fibre is useful for ropes, cordage and mat making. Its leaves yield 1.5 -5% of a fibre which is stronger than cantala fiber. Its extract is used for preparing Ayurvedic medicines kumara Asaw, Ghirt-kumari especially for woman ailments. Such advocacy has been made by a community roaming hither and thither like Kanjad (S.T.).

Asphodelus tenuifolius Cav. (Piazi)

It is used a good cattle fodder. Its leaves after crushing are used externally for giving relief against burns and cuts. Such statement has been made by sweet makers.

Aegle marmelos Linn. (Bel pattar)

The half ripe fruit is regarded as digestive and stomachic. It is beneficial in cases of diarrhoea and dysentery. The leaves known as bel-patra are used in the worship of lord shiv Shanker. Friuts are used for making sherbet in summer season which have cooling properties. Also used in dysentery such advocacy has been made by villagers.

Azadirachta indica Ajuss. (Neem)

Whole plant part is medicinal value. Bark is bitter, tonic. It is regarded beneficial in malarial fever. Leaves are applied to boils in the form of poultice and decoction recommended in ulcers and eczema. Such statement has been reported by Dai.

Abrus precatorius Linn. (Chontni)

Seeds are purgative, emetic, tonic and used in nervous disorder and cattle poisoning, Poultice seeds is used a suppository to bring about abortion. Such statement has been made by villagers.

Abutilon ramosum Guill. & Perr. (Cchoti Kanghi)

Leaves are used in gonorrhoea, applied to ulcers, internally for stone in the bladder and as an eye wash. Its leaves, bark

and roots are demulcent and diuretic as claimed by Ghosi community.

References

1. Mitra JN. In Introduction of systematic Botany and Ecology. The world Press Private Limited. Culcutta, India, 1974.
2. Kumar S, Singh BS, Singh RB Ethno medicinal plants uses to cure different human diseases by rural and tribal peoples of Hathrs district of Utter Pradesh. Journal of pharmacogn and phytochem. 2017; 6(2):346-348.
3. Chopra RN, Nayer SL, Chopra IC. Glossary of Indian medicinal plants, CSIR, Pub. New Delhi, India, 1956.
4. Hooker J D, The Flora of British India; L. Reeve and co. kent, 1872-1897.
5. Jain SK. Methods and Approaches in Ethno botany, Society of Ethnobotanist, Lucknow, India, 1989.
6. Kanjilal UN, Gupta BL. Forest flora of Dehradun, 1969.
7. Kirtikar KJ, Basu BD. Indian Medicinal Plants, International Book distributors, Dehradun, 1918, 1(5).
8. Siddiqui MAA, John AR, Paul TM. Advances in Plant sciences. 1995; 8:134-139.
9. Singh HB, Subra manyam. Field Manual of Herbarium Technique, NISCAIR, CSIR, New Delhi, 2008, 360.
10. Singh G, Singh H B, Mukherjee T K, Ethno medicine of North East India, NISCAIR, CSIR, New Delhi, India, 2003, 360.