

Survey of some common medicinal plants of Hathras district of Uttar Pradesh (India) and their ethnomedicinal values

¹Om Pal Singh, ²AK Singh, *³RB Singh

^{1,2}Department of Botany, R.B.S. College, Agra, Uttar Pradesh, India

³Department of Zoology, School of Life Sciences, Dr. B. R. Ambedkar University Khandari Campus, Agra, Uttar Pradesh, India.

Abstract

Present manuscript mainly deals with 15 species of flowering plants belonging to 13 families used in medicine in and around Hathras District of Uttar Pradesh (India) especially on urban and rural areas. The information based on extensive survey of the area, gathering oral folklores and search of literature on medicinal plants and their ethnomedicinal importances.

Keywords: ethnomedicinal values from medicinal plants of Hathras district, U.P., India

Introduction

Hathras district is situated in the Aligarh region of Uttar Pradesh. Its global location is between 20.4⁰ and 29⁰ North latitude and between 76⁰ and 77⁰ East longitudes. The geographical area of Hathras district is 175.6 sq. km. Since it is near to Agra district therefore, it is a part of Aligarh region of Uttar Pradesh (India). The temperature during the summer month reaches to its peak upto about 47.5⁰C in the month of June and in the winter season the temperature upto 5.6⁰C in the month of January. Hathras district is one of the important for wheat grain producer but barely, paddy, mustard, potato, maize, mung and sugarcane are also cultivated at large scale. Alongwith green revolution, it also contributes in white revolution as dairy farming and milk production are the main activities of the residents. The Bharat Petroleum Gas Plant is located at Rati Ka Nagla, 15 km. from Hathras to Sikandra Rao road.

Materials and Methods

India is a veritable emporium of the medicinal and aromatic plants. It has been estimated that about 15,000 higher plant flourishing in India, about 9,000 plants are commercially useful, 7,500 plants are medicinal, 3,990 plants are edible, 700 plants are culturally important, 525 plants are fibre yielding, 400 plants are fodder, 3,000 plants are pesticide and insecticides yielding, 300 plants are gum, resin and dye yielding and 100 plants are source of incense and perfume ^[1]. Various medicinal systems of plants like Ayurveda, Unani, Herbal and Homeopathy have been utilising plants

for various drug preparations have now assumed great importance owing to side effects of synthetic drugs. Indian sub-continent is blessed with most varied and diverse soil and climatic conditions which are suitable for the growth of almost every plant species. Uses of plants in medicines had been a long practice by man from ancient times. This practice of using plants in medicine is still prevailing not only among the tribals but also among several others, who live in the rural areas. The main aim of the study was not only to prescribe remedies for diseases but to bring out the importances of plants in medicines. It was also aimed to encourage the farmers to go for cultivation of suitable medicinal plant species in this agro-climatic regions ^[2]. Hence, the present work, survey and observation were carried out in remote rural villages to identify the common and cultivated medicinal plants and their utilization by villagers in Hathras district of Uttar Pradesh (India).

Results and Discussion

The data was obtained through direct field visits and contact with local people and farmers. The information regarding the ethnomedicinal uses of the plant reported is collected ^[3]. The present study revealed that there are many plant species of different families which are traditionally used by the villagers for medicinal purpose. Table-1 reveals that there are 15 species of plants identified and described with botanical and vernacular names, family and different plant parts used in the medicine ^[4].

Table 1: Some medicinal plants used as medicine by the rural people of Hathras district of U.P. (India).

S. No.	Botanical Name	Vernacular Name	Family	Plant parts and their uses
1.	<i>Abrus precatorius</i> Linn.	Ratti	Fabaceae	Seeds are used for weight by Goldsmith, seeds are purgative tonic, nervous disorder and cattle poisoning. Seed poultices are used as abortion.
2.	<i>Argemone maxicana</i> Linn.	Peeli Kateli	Papaveraceae	Latex used in dropsy, jaundice and eye troubles and seed oil is used for burning.
3.	<i>Azadirachta indica</i> Linn.	Neem	Meliaceae	Leaf extract and seed oil is used to cure small pox and skin diseases.

4.	Butea monosperma Lam.	Dhak, Palas	Fabaceae	Flowers, bark and gum are used for cure of weakness.
5.	Calotropis procera Linn.	Madar	Asclepiadaceae	Warmed leaves are covered with cotton cloth on the painful parts of the body to cure swelling.
6.	Cannabis sativa Linn.	Bhang, Ganja	Cannabinaceae	Paste of leaves is used for curing piles, leaves is also used for narcotic purposes in Tribals peoples.
7.	Datura metel Linn.	Sadah Datura	Solanaceae	Leaves are warmed with castor oil and applied for pus release and healing of wounds.
8.	Emblica officinalis Gaertn.	Amla	Euphorbiaceae	Fruits are the sources of Vitamin-C and used for Morabba and Trifala, hair oils and cosmetics.
9.	Hibiscus-rosa-sinensis Linn.	Gurhal	Malvaceae	Paste of leaves and flowers is applied externally for hair growth and cooling effects.
10.	Moringa oleifera Lam.	Sainjna	Moringaceae	Fruits are used as vegetable, pickled and also used for the treatment of cardiovascular diseases, gum used for dental infection, leaves are rich in Vitamin-A & C and used in scurby.
11.	Ocimum sanctum Linn.	Tulsi	Lamiaceae	Leaf juice is used to cure of dry cough syrup and leaves extract mixed with honey given to fever patient.
12.	Syzygium cuminis Linn.	Jamun	Myrtaceae	Seed powder is taken internally to control diabetes.
13.	Tamarindus indica Linn.	Imli	Ceasalpiniaceae	Seeds mixed with sugar are used in Leucoderma, spermatorrhoea, fruit paste mixed with lime are used for painful muscles.
14.	Terminalia arjuna Roxb.	Arjun	Combretaceae	Bark used for tonic as astringent and also useful in heart diseases as tonic, bark is also used as antidote to poisonous scorpion.
15.	Withania somnifera Dunal	Ashwagandha	Solanaceae	Root paste is applied externally for inflammatory, ulcers and scabies. Leaf extract used for antioxidant and anticancer.

References

1. Anon, A. *Status report, All India Coordinated Research Project in Ethnobotany*, Ministry of Environmental Forests, Govt. of India, New Delhi, 1994.
2. Subramanyam NS. *Laboratory Manual of Plant Taxonomy*, Vikas Publishing House, New Delhi, 1997.
3. Prajapati, Purohit Sharma PD, Kumar HD. *A Hand Book of Medicinal Plants*, Agrobios Publisher, Jodhpur, India, 2013.
4. Duthie JF. *Flora of Upper Gangetic Plain and of the Adjacent Siwalik and Subtimalayam Track*, Kolkata, 1929.