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REVIEW ARTICLE

Study on 10 Medicinal Plants in Sundarban Region, West Bengal, India

Goutam Mukhopadhyay*

Department of Pharmacy, BCDA College of Pharmacy and Technology, Barasat, Kolkata, West Bengal, India

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ABSTRACT

Modern approaches of ethnobotanical studies on various medicinal plants in Sundarban region are to create awareness among the locality along with all over India. The aim of the studies of medicinal plants will focus the cause and the help of treatment diseases. The investigation deals about 10 medicinal plants which are used by local people throughout the Sundarban region. Ethnomedicinal plants information were taken by the interview of ojha and local old villagers throughout the study period. In various villages of this region, it is found that ethnobotanical medicinal plants are used to treat common problems (such as injuries, stomachache, abdominal disorder, and skin problem). By the field visits and knowledge gather from the villagers, the study is done to motivate further research on medicinal plants which may lead to discovery of novel drugs in the fields of research and development study.

Keywords: Ethnobotanical medicinal plants, local old villagers, Sundarban region, treat common problems

INTRODUCTION

Indian peoples are using medicinal plants from the ancient era. Ayurvedic medicine practice using ethnobotanical medicinal plants has been culturally accepted as well as regionally accepted throughout the all human cultures and environmental evolutions. Traditional medicine is widely used and about 40% of health care delivered.[1] Total 8000 species of medicinal plants are used by several ethnic population. Particularly, the knowledge is gathered by seeing the use of medicinal plants by the local villagers. Many modern researchers are involved today to identify and discover various ethnobotanical plants use for the treatment of various diseases.[2-4] The ethnobotanical plants are in danger due to deforestation. Hence, the study will indicate the urgent need of their conservation along with the importance of their use as medicinal plants. The largest segments of population are dependent on the medicinal plants for the treatment of different disease condition. The villagers are closely linked with the forest where medicinal plant plays an important role to fulfill their daily needs. The present investigation gives a bird's eye view on the importance of such priceless knowledge in health-care management and development of new medicaments.

METHODOLOGY

Study area

Total area of Sundarban is 539 square mile (139,500 ha), coordinates are 21°57'N 89°11'E/21.950°N 89.183°E. Total study area including waterlogged jungle is 6526 square mile. Climate as per data, during summer is 35°–42°C (approximate), during winter is 10–17°C (approximate).

Study period

The study is done months of June 2018–July 2018.

Data collection

The study is conducted by standard methods of herbarium techniques. Ethnobotanical information are collected by standard method.[5] The villagers

***Corresponding Author:**
Goutam Mukhopadhyay
Email: gmukhopadhyay8@gmail.com

are asked to provide the local name, various parts, and their use of various plants. After note down the name of the plants, the hand-to-hand collection and identification of species by visiting the fields are done. The collected specimens are identified using flora and other standard literature.[6-9] Other's plants are identified in the central national herbarium (Kolkata, Shibpur), West Bengal.

RESULTS

A total of 10 plants are studied and cited in this paper. The people are partially depended on this type of medicinal plants for treating various diseases throughout the Sundarban regions.

The plant species studied were arranged alphabetically along with their plant name, local name, family, plant part, and medicinal used are as in Table 1. As well as statistical pie diagram shown in Figure 1 on the basis of plants parts used.

DISCUSSION

During the study of plants and plant parts is used for medicine in Sundarban region to the treatment of different diseases have been explored. Statistical analysis of data revealed that leaves and stem are mostly used for various treatments of disease shown in Figure 1 as 41% leaves, 30% stem, 23% seeds, and 6% roots are used. The ethnobotanical medicinal plants are used for curing some of the important and common diseases (such as cough, fever, leukoderma, diarrhea, and various skin problems). The present study is done to create the awareness about this type of medicinal plants among the people as well as to give an important idea about some future research. The final word can be said as the village's plants are extensive materials to treat various diseases as a future prospect.

CONCLUSION

This study will provide some potential leads to fulfill needs of search of various new drugs to fight against disease in future prospects. In all Sundarban regions, particular treatment of small injuries, stomachache, and abdominal disorders, etc., is treated by this type of medicinal plants. By this study, a new door of sustainable development of bioactive molecules will open. It is helpful to pharmaceutical company to discover a new drug by this ethnobotanical medicinal plant study.

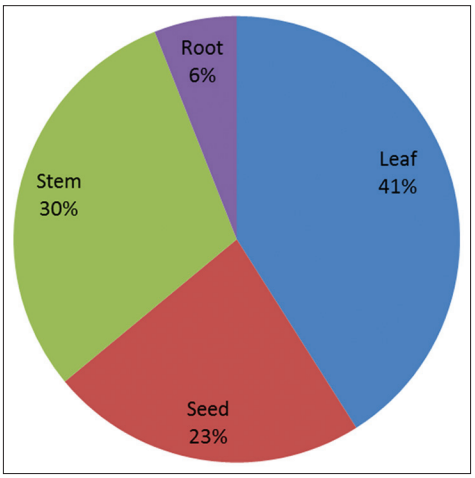

Figure 1: Percentage of plant parts used as medicine

Table 1: Medicinal plants used by local villagers in Sundarban

Name	Local name	Family	Plant part	Medicinal use
Andrographis paniculata	Kalmegh	Acanthaceae	Leaf, dried leaf	Leaf extract to treat jaundice, dried leaf extract to treat body pain
Argemone mexicana L.	Pili kateri	Papaveraceae	Root, stem	Root paste is mixed with sugar and taken orally with water for fungal infection on skin
Butea frondosa Roxb.	Palas	Fabaceae	seed	Seeds paste applied tropically for cure ringworm
Centella asiatica	Thankuni	Apiaceae (Umbelliferae)	Leaf, stem	Leaf used to treat diarrhea and dysentery, also treatment for eczema
Hibiscus rosa-sinensis L.	Jaba	Malvaceae	Leaf, root	Leaves used to treat burning sensation and roots used to treat cough and fever
Lawsonia inermis L.	Henna	Lythraceae	Leaf	Leaf juice for removing marks on skin and leaf paste for curing burn and wounds
Ocimum sanctum L.	Tulsi	Lamiaceae	Leaf	Leaves used for fungal infection, leaf extract used for treat cough and headache
Plumbago zeylanica	Chitrak	Plumbaginaceae	Root	Root used for high fever
Solanum indicum	Ban begun	Solanaceae	seed	Seed applied on teeth and gum infection
Strychnos nux-vomica L.	Kuchila	Loganiaceae	Stem	Stem paste used to cure leukoderma infection

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