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STUDY OF ETHNOBOTANICAL PLANTS USED BY THE PEOPLE OF NALBARI DISTRICT OF ASSAM, INDIA

Kumar Kamal Jyoti*, Biman Bhuyan, Ananta Saikia, Sonu Pashwan

Department of Pharmaceutical Sciences, Dibrugarh University, Dibrugarh, Assam, India.

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***Corresponding Author**
Kumar Kamal Jyoti
Department of Pharmaceutical Sciences, Dibrugarh University, Dibrugarh, Assam, India.

ABSTRACT

The present survey deals with the Ethno botanical plants used by the people of the Nalbari district of Assam. The North-Eastern region of India is dignified as one of the richest biological hotspot owing to its wide variety of plant species having potent pharmacological activities. The knowledge of traditional medicines is of prime importance among the people of developing countries due to poverty and poor medical facilities. The trust of these people in local healers is immense pertaining to their success in relieving diseases. The sole purpose of the study is to document the plants used by the traditional practitioners of this aforementioned region for healing ailments. An Ethno botanical survey was conducted in different areas of Nalbari district for a period of six month from August 2015 to January 2016. During the field study, 40 plant species belonging to different families have been recorded on the basis of its popularity among local healers in healing a particular disease. In the enumeration, data is described with botanical name, local name or common name, family and uses. The survey was carried out hand questioning and conversation among the traditional practitioner (Ojhas) and educated people of Nalbari district of Assam.

KEY WORDS: Ethnobotany, Nalbari, Ojhas.

INTRODUCTION

Necessity is the mother of invention, this famous saying goes well in terms of finding remedies for ailments. Since the dawn of human civilisation, man has been dependent on nature right from basic primary needs up till harbouring medicaments. Indian culture is closely related with harbouring potential of plant for rectifying various disease conditions and this can be traced back to the remote past. With the advent of new technologies, the

healthcare systems have changed radically. But this is not the scenario everywhere, as depicted by WHO, 80% of the world population still rely on Ethnobotany deals with the scientific study of the traditional knowledge and customs of a people concerning plant and their medicinal, religious and other uses. The term ethnobotany was coined by John w. harshberger(1895) and considered as the art of collection of useful plants by a group of people and the description of uses of plants. The focus of ethnobotany is on how plants have been or are used, managed and perceived in human societies and includes plants used for food, fodder, medicine, divination, cosmetics, dyeing, textiles, for building, tools, currency, clothing, music, social life and rituals.[1] Ethnomedicine plays an important role in the medical health aspect of the different people for the treatment of various disease and disorder. Around 16000 species of higher plants are found in India and out of these 7500 species have been reported to be used by different ethnic communities for medicinal and health care purposes.[2] Nalbari is an administrative district in the state of Assam in India. Nalbari district occupies an area of 2,257 square kilometres (871 sq mi).The latitude of Nalbari is 26 degrees north and 27 degrees north and the longitude is 91 degrees east and 97 degrees east. The survey included 16 villages of Nalbari district.

METHODOLOGY

An ethnobotanical survey was carried out at 16 different villages of Nalbari district namely Bori, Solmari, Piplibari, Niz tapa ,Thuthikata ,Bar helecha, Chamata, Bihampur, Jamtola, Balilecha, Dhamdhama, Paikerkuchi,Tilana, Balikaria, Barkhanjan, chandakuchi. The information of the plants was collected through the field visit from the different communities of people of Nalbari. The information of the plants were also collected from the local practitioner (ojhas) and educated people through hand questioning and conversation. The parts of the plants were identified with the help of local flora and available literature.[3]

RESULTS AND DISCUSSION

A total of 40 species belonging to 32 families were identified (Table 1). For each species the botanical name, family name, local name, uses were recorded**.**The methods applied by the people for the preparation of medicine varied from place to place as well as people. It was observed that the use of plants for medicinal purpose is still popular among the general people of this district. The results of the present study will provide evidence that medicinal plants continue to play an important role in the healthcare system of that community. Among 40 species, *Flemingia strobilifera, Lawsonia inermis, Centella asiatica, Centella asiatica*

(Bor-manimuni), *Mimosa pudica, Allium cepa* L. are used as anti-inflamatory. In diarrhoea, people of Nalbari are using *Alocasia macrorrhiza* L., *Zingiber officinale Rosc., Spondias pinnata, Cajanus cajan* L, *Murraya paniculata* L. In jaundice, they use *Alocasia indica* Roxb., *Tamarindus indica* L, *Aegle marmelos, Tinospora cordifolia, Kalanchoe pinnata.* In rheumatoid arthritis, people of Nalbari use *Alocasia indica* Roxb., *Datura stramonium, Spondias pinnata*. *Alocasia indica* Roxb. is used in constipation. *Alocasia indica* Roxb., *Alocasia macrorrhiza* L., *Nyctanthes arbor-tristis* L., *Kalanchoe pinnata* (pategaja), *Paderia scandens* (Bhedai-lota), *Dillenia indica* (outenga) is highly effective in the people of Nalbari.

The world health organization estimates that about 80% of the population of most developing countries depends on herbal medicines for their primary healthcare need.The indigenous rural community depends on traditional healthcare system. About 80% of human population in India is using herbal medicine to care different kind of diseases.[4] In rural area where health care system is very low, these plants are very effective to cure various types of diseases.

Table1: Ethnobotanical uses of plants by People from Nalbari district[5-9]

SL. NO	Botanical name	Family	Local name	Uses
1	*Aegle marmelos*	Rutaceae	Bel	Gastrointestinal diseases, piles, oedema, jaundice, vomiting, obesity, pediatric disorders, gynaecological disorders, urinary complaints and as a rejuvenative.
2	*Allium cepa* L.	Liliaceae	Piaj	Antioxidant, immuno-modulatory, Ani-inflammatory, good nutrious vegetable, used in the treatment of high cholesterol, diabetes, joint disorders, loss of appetite, high blood pressure, asthma, bronchitis, cough, intestinal worms etc.
3	*Allium sativum*	Liliaceae	Naharu	High blood pressure, diabetes, gastritis disorders.
4	*Alocasia indica* Roxb	Araceae	Man-kachu	Rootstock is cooling, mild laxative, and diuretic, useful in piles, constipation, inflammation, rheumatism, jaundice, diseases of spleen etc.
5	*Alocasia macrorrhiza* L.	Araceae	Kola-kachu	Antimicrobial, antifungal,antioxidant, hepatoprotective, anti diarrheal, antiprotozoal, rootstock is used in laxative and diuretic.
6	*Amaranthus spinosus*	Amaranthaceae	Kuturahak	Increase fertility, potency
7	*Azadirachta indica*	Meliaceae	Neem	Anthelmintic, antifungal, antidiabetic, antibacterial, antiviral, contraceptive
8	*Bacopa monnieri*	Scorphulariaceae	Brahmi	Epilepsy, asthma. It is also used in ulcers, tumors, ascites, enlarged spleen, indigestion, inflammations, leprosy, anaemia, and biliousness.
9	*Benincasa hispida*	Cucurbitaceae	Kumara	Peptic ulcer, helps in incystitis, urinary tract infection, kidney stone, prevent indigestion.
10	*Brassica junceae*	Brassicaceae	Lai	Vegetable, diuretics, emetic, rubefacient, arthritis,

				foot ache, rheumatism etc.
11	*Cajanus cajan L.*	Fabaceae	Garo-mah	Hepatoprotective, diarrhoea, gonorrhoea, measles, burns, eye infection, anaemia, intestinal worms etc.
12	*Carica papaya*	Caricaceae	Amita	Antimalarial and antiplasmodial, used in thrombocytopenia.
13	*Centella asiatica*	Apiaceae	manimuni	Wound healing, Gastric ulcer, Antinociceptive and also as a anti-inflammatory etc.
14	*Centella asiatica (L)*	UrbanApiaceae	Bor-manimuni	Sedative, anxiolytic, antidepressant, antiepileptic, antioxidant, antiinflamatory, gastric ulcers, etc.
15	*Cinnamomum tamla*	Lauraceae	Tezpat	Used in sleeplessness
16	*Citrus grandis (L)*	Rutaceae	Robabtenga	Leaves used in epilepsy, chorea, convulsive cough.
17	*Cuscuta reflexa*	Cuscutaceae	Akashi lota	Used in osteoporosis
18	*Cynodon dactylon L.*	Poaceae	Dubari-ban	Used in uterine bleeding
19	*Datura stramonium*	Solanaceae	Kola datura	To treat hair fall, hair loss, dandruff, insect repellent, relieve headache, rheumatism and gout.
20	*Dillenia indica*	Dilleniaceae	Outenga	Vegetable, antidiabetic, antioxidant, anti leukemic activity, antimicrobial, dysentery analgesic etc.
21	*Diplazium esculantum*	Athyriaceae	Dhekia-hak	A decoction of the leaves is used as a tonic for women after they have given birth, the plant is used as a traditional medicine, vegetables
22	*Emblica officinalis*	Euphorbiaceae	Amlokhi	antipyretic, analgesic, anti- tussive, anti-atherogenic, adaptogenic, cardioprotective, gastroprotective, anti- anaemia, anti-hypercholesterolemia, wound healing,
23	*Flemingia strobilifera*	Fabaceae	Makhiyoti	Gastrointestinal disease, inflammatory diseases
24	*Kalanchoe pinnata*	Crassulaceae	Pategaza	Jaundice, High blood pressure, scanty urine, Dysuria, Urinary problems etc.
25	*Lawsonia inermis*	Lythraceae	Jetuka	Cardiotonic, Antipyretic, diuretic, emetic, oedema, expectorant, anodyne, anti-inflammatory,
26	*Litsea salicifolia*	Lauraceae	Dighloti	Phytopesticide, repellent activity
27	*Mucuna prurita*	Fabaceae	Bandar-kekowa	Parkinson's disease, depression, insomnia
28	*Mimosa pudica*	Mimosaceae	Lajukilota	Wound healing activity, antivenom activity, piles, ulcers, diarrhoea, anti- inflammatory, antidiabetic, antifungal.
29	*Murraya Koenigii*	Rutaceae	Narasingha	Decoction of the leaf taken orally to cure dysentery
30	*Murraya paniculata* L.	Rutaceae	Kaminikanson	A decoction of the leaves is used as mouth wash for toothaches, astringent, stimulant, dropsy, diarrhoea, dysentery, analgesic etc.
31	*Musa bulbisiana Colla*	Musaceae	Athiakol	Bronchitis, diabetes, epilepsy, fever, diarrhoea and can also relieve haemorrhoids and insect bites and stings
32	*Nyctanthes arbor-tristis*L.	Oleaceae	Sewali-phul	Anti malarial, antihelmintic

33	*Ocimum sanctum*	Lamiaceae	Tulashi	Bronchitis, bronchial asthama, diarrhoea, dysentery, arthritis, eye diseases, antifungal, antiemetic etc.
34	*Paderias candens*	Rubiaceae	Bhedai-lota	antivinous, carminative, depurative, vermifuge antirheumatic .They are used to increase infertility and treat paralysis. A decoction of the whole plant is used in the treatment of abdominal pain, abscesses, arthritis, overeating.
35	*Piper nigrum*	Piperaceae	Jaluk	Diuretics, carminative, stimulants stomachic, malarial fever, externally rubefacient, stimulant to the skin, as infusion used on gargles for sore throat etc.
36	*Tamarindus indica L*	Caesalpiniaceae	Teteli	Stomach disorder, general body pain, jaundice, yellow fever, blood tonic
37	*Terminalia chebula*	Combretaceae	Hilikha	Astringent, laxative, anthelmintic, used in piles, external ulcers etc.
38	*Tinospora cordifolia*	Menispermaceae	Amor-lota	Jaundice, diabetes, and rheumatoid arthritis, and is also used as an immune- stimulant
39	*Spondias pinnata*	Anacardiaceae	Amora	Astringent, refrigerant ,infusion of the bark is given in dysentery, diarrhoea, gum of the bark is used as a demulcent, also used as rheumatism, appetizing
40	*Zingiber officinale Rosc*	Zingiberaceae	Ada	Stimulant, carminative, dyspepsia,colic, heart diseases, arthritis, diarrhoea, motion sickness, diabetes.

CONCLUSION

Ethno-medicinal documentation will play an important role in the near future for drug discovery. Already there have been instances of failure of chemotherapy in many of the ailments especially in case of anti-microbials, which is due to the development of resistance. Thus studies related to traditional knowledge for curing diseases will provide alternative strategy for confronting health hazards and led to a better and safe human future. But not much have been till now to refrain the knowledge from becoming extinct. The personnel practicing these age old practices also does not document their knowledge in proper manner or if they do they don't want to reveal. It is because of this many common plants have not yet been fully utilised to the extent they can be. Studies of present type will be more fruitful if people full-heartedly comes forward to document their knowledge and make a contribution toameliorate the library of the traditional system of medicine. Further the documentation process must not be confined to people of a specific stream as we need to record each and every aspect more detailed with proper guidance and precisely. Hereby we should declare to work in a close synchrony for procuring much more facts and knowledge by these kind of studies.

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