

Ethnobotanical Studies of Some Medicinal Plants of Barabar Hills

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Key words : Ethnobotanical study, medicinal plants, Barabar Hills.

This paper deals with the ethnobotanical study of some medicinal plants collected from Barabar Hill, Bela, Jehanabad. This study was carried out during 2013-2015. A total of 25 medicinal plants were collected which are used in various disease treatment. The available data showed that herbs constituted the highest proportion of medicinal plants. Local people possess traditional knowledge of medicinal plants to treat various human ailments, however, disinterest of young generation became the major threat. Therefore, it is necessary to preserve this proper documentation, identification of used plant species and herbal preparation.

INTRODUCTION

Barabar Hills are located in Bela of Jehanabad district of Bihar. It is located on 25-0' to 25-15' degree north latitude and 84-31' to 85-15' east longitude. It is one of the most ancient sites of rock-cut architecture in India. It consists of four ancient cave, dated back around 200BC and constructed during the period of great Mauryan king, the Ashoka

Asia represents one of the important centre of knowledge with regard to the use of plant species for treatment to various human diseases (Saxena et al.; 2010). About one third of currently marketed drugs are related to natural products. Natural products still offer alternative chemical diversities. (Guhabakshi et al., 1999, Gerai et al., 1996, Warrior et al., 1996, Bhanumati et al., 2010, and Jima and Megersa, 2018).

To promote the proper use of herbal medicines and to determine their potential as sources of new drugs, it is essential to study medicinal plants having folklore reputation in a more intensified way (Rahman and Kumar, 2017).

The present paper deals with the ethno-medicinal study of plants of Barabar Hills of Bihar.

MATERIALS AND METHODS

Several rounds of trip to Barabar hills were arranged for investigation during 2013-2015. During each trip date was recorded in the field book. The data recorded includes locality, habit, habitat, local name, scientific name, families, morphological descriptions etc. the uses of collected plants from local inhabitants, medicine men, experienced rural folk, practitioners, local herbal drugs sellers and Vaidyas.

OBSERVATIONS AND DISCUSSION

Barabar Hills are located in Jehanabad district of Bihar. A survey of Barabar Hills was done and observation has been compiled in Table-1.

A total of 25 medicinal plant species belonging to 24 genera and 16 families were reported to be used by the local communities in various diseases. Fabaceae was leading family with 5 species.

The growth form analysis of medicinal plants revealed that herbs constitute the highest proportion, represented by 14 species, shrubs represented by 5 species and trees represented by 5 species and parasite represented by 1 species.

Exploitation of plants is continuing and people are concerned with conservation of those plants for which they are concerned. Due to negligence, there is a need to conserve medicinal plants by setting botanical gardens, seed banks, *in vitro* cultures, etc. (Gupta and Kumar, 1997).

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TABLE-1

S.N.	BOTANICAL NAME	VERNACULAR NAME	FAMILY	DESCRIPTION	APPLICATIONS
1	Abelmoschus esculentus L.	Ramtorai, Bhindi	Malvaceae	Annual with yellow flowers	Juice of the plant is used to treat cuts and wounds and urinary problems, also useful to cure abdominal disorder, constipation, diarrhoea and general debility
2	Acacia arabica L.	Babool	Fabaceae	Tree with dark brown, longitudinally fissured rough bark and reddish brown hearty wood, golden yellow flowers, globose heads and stalked monili form pods.	Used in fever, helps in blood clotting during excessive bleeding and haemorrhages. Helps in proper digestive activities and prevents diarrhoea, dysentery. Useful in urine related disorders and reproductive and genital related problems.
3	Acacia catechu L.	Khair, kattha	Fabaceae	Deciduous tree with rough bark and pale Yellow flower.	Useful in dental problems, gives relief in dry cough, useful in anaemia, leprosy, bronchitis, pruritus, diarrhoea, and polyurea, externally used for ulcers, boils and eruption of skin.
4	Acalypha indica L.	Kuppi	Euphorbiaceae	Wild, weak stem, small leaves, unisexual flower.	Whole plant body including flowers is of medicinal importance and used in cure of bronchitis, asthma, rheumatism etc. Pest of leaves are useful on ulcers.
5	Achyranthes aspera Linn.	Chirchiri, lajjeera	Amaranthaceae	Wild, herbaceous plants with spike of flowers at branch tips.	Root paste used for healing wounds. Half spoon leaves powder mixed to honey helps to cure diarrhoea. Seed powder used in piles.
6	Aegle marmelos L. correa	Bel	Rutaceae	Thorny deciduous tree, trifoliolate leaves, ovate-lanceolate, leaflets greenish, white flower found in axillary panicles, globose woody berry fruits with yellow pulp.	Powder of unripe fruit of bel along with water cure dysentery. Ripe fruits is a good astringent, have cooling effect. The decoction of the bark is used in intermittent fever.
7	Aloe vera (L.) Burm.f	Ghrita kumari	Liliaceae	Herbaceous plant with fleshy and juicy leaves	Juice of leaves is used in fever, liver disorder, spleen problem, jaundice, gonorrhoea, piles, skin diseases and menstrual suppression. Juice of roasted leaf is given in cough and cold. The extract of the plant is useful in the treatment of diabetes and elevated blood lipids in human.

8	Allium sativum L .	Lahsun	Liliaceae	Cultivated herb with green leaves and basal bulb.	Leaves and tubers powder are extensively used as spice and stimulant. Leaves and tuber juice used to cure fever and cough .It is antiarthritic, aperient, digestive, expectorant stimulant and vermifuge. Useful in whooping cough, fever, heart trouble, hysteria and piles
9	Andrographis paniculata (Burm. f.)	Chiraetta, kamegh	Acanthaceae	Annual herb having slender quadrangular branches with opposite leaves, white flower capsule fruit with many seeds	Aerial parts of plant are useful in curing liver, worms, dysentery, gas formation, liver sickness. Plants has antityphoid and antibiotic properties, plant pacifies tridochas, skin diseases burning sensation, cough and bronchitis. Plant stimulates liver and purifies vitiated blood, plant powder with black pepper cures malaria. Leaves powder with mustard oil is used to control etching.
10	Argemone mexicana L.	Kataila	Papaveraceae	Wild plant bears prickles on the leaves	Plant juice used as antiseptic and to check bleeding from the wounds
11	Bacopa monnieri L.	Mandukparni	Scrophulariaceae	Perennial, creeping ,herbaceous plant, Corolla bluish white.	Whole plant is used for cure of mental diseases and nervous disorder, convulsion, constipation and bronchitis. Promotes urination and act as a blood purifier. Plant contains an alkaloid bramhine which acts as a cardiac tonic.
12	Bryophyllum pinnatum Kurz	Ghamari	Crassulaceae	Wild ,herbaceous plant	Leaf juice is given in diarrhoea, dysentery, calculus affections, cholera, leaves are styptic, astringent and antiseptic. Useful in diminishing the stones of gall bladder and kidney.
13	Boerhavia diffusa L.	Rinarva	Nyctaginaceae	Prostrate growing, trailing herb growing as weed. Much branched, leaves, two from each node and crodate ,reddish flower.	Entire plant parts along with its root are used as expectorant, laxative, diuretic and largely used in jaundice ,leaves are used for control of diabetes, roots asthma, anemia, tumors and internal inflammations. Decoctions of roots are also used for the tratement of dyspepsia, enlargement of spleen, abdominal pain.

14	Butea monosperma Okuntze	Palas	Fabaceae	Endemic tree compound leaves with three leaflets. Dense clustered orange flower and flat pod fruit with only one seed.	Root decoction used in urinary troubles, bark decoction used in loose motion. Leaves paste is given for control of diarrhoea. Flowers used for urinary complaints. Gum used to control diarrhoea. Seed powder used to check roundworm and tapeworm
15	Caesalpinia pulcherrima L. Swartz	Puraiphul	Fabaceae	Shrub, bipinnate leaves, racemose inflorescence, flowers with five petals and pod fruits.	Used as an abortifacient, febrifuge, purgative, tonic used for asthma, bronchitis and malarial fever, decoction of fresh seeds are used for pain in gums due to inflammation. Seeds with salt paste applied on ringworm, leaves used as astringent and anti helminthic
16	Calotropis gigantea Br.	Akban	Asclepiadaceae	Wild shrubby plant	Warmed leaves smeared with castor oil are tied round abdomen to cure stomachache. After frying in cow's ghee, flowers are used in asthma, leaf juice mixed with cardamom and jagery is
17	Celastrus peniculatus wild	Mal-kangani	Celastraceae	Large woody climber shrub	Seeds are used as stimulant, intellect, laxative, emetic, expectorant, appetizer, cardiotoxic, anti-inflammatory and diuretic (Chopra and Chopra 1958, Warrior <i>et al.</i> , 1996, Bhanumati <i>et al.</i> , 2010). It has also been used for healing abdominal disorders, leprosy, skin diseases, paralysis, asthma, leucoderma, cardiac debility, inflammation nephropathy, amirorrhoea, dysmenorrhoea, beriberi, sores. Bark is considered to
18	Centella asiatica	Brahmibuti	Apiaceae	Wild, trailing herb, leaves with toothed margin pinkish red flower born in cluster.	Leaves boiled in water and decoction used in treatment of leprosy, act as blood purifier and local stimulant used for treatment of enlargement of gland, nervous diseases, skin diseases, cholera and piles, cures headache, madness, and improves memory. Provides strength and tonic to heart and nerves. Removes constipation and promote

19	Convolvulus pluricaulis. Chois.	Sankhpushei	Convolvulaceae	Wild, herbaceous plant	Acts as antiphlegmatic, antiplogistic drug. Cures dysentery and skin diseases. Acts as brain tonic, improves memory and normalize blood pressure. Used in anxiety, neurosis, insanity, epilepsy, insomnia fatigue, low energy level.
20	Crinum defixum Ker Gawil	Sukhdarsan	Amaryllidaceae	Bulbous herb, long leaves, linear, white flower arranged in umbel inflorescence	Bulb is emollient and emetic, in small dosage. It is a nausant and diaphretic. Bulb is used for treatment of burns and carbuncle. Juice of leaves is used to cure ear troubles.
21	Croton tiglium L.	Jamalgota	Euphorbiaceae	Herbaceous plant found as sporadic	Used in bronchitis, asthma, paralysis, rheumatism, laryngitis and neuralgia. Used in sciatica and Joint pain
22	Cuscuta reflexa Roxb.	Amarbel	Convolvulaceae	Grows over shrubs and trees as plant parasite	Plant paste applied for curing Eksira.
23	Cynodon dactylon L. pers.	Dub grass	Poaceae	Herbaceous grass creeps on ground	It is antiabortive, astringent, conceptive, demulcent, diuretic haemostatic, ophthalmic, used in cut and wounds dysentery, dropsy and dysuria, eye-affectations, epilepsy, hysteria and insanity, marks and blemishes, piles, bleeding, skin-diseases, ulcers and wounds. Decoction of whole plant is taken orally to keep the body cool.
24	Datura stramonium L.	Datura	Solanaceae	A fruticose herbaceous, plant leaves large, leaves large ovate, toothed, Flower ovoid, prickled fruit.	Used in bronchitis, and asthma. Flower juice is used in earaches. Fruit juice is used to treat dandruff and hair loss. Seeds used as narcotic and antispasmodic. A paste of dried leaves is applied to boils and sores.
25	Dolichos biliorus L.	Kulthi	Fabaceae	Crop plant	Used in asthma, cold, cough, effective against stones in kidney and gall bladder, leucorrhoea and menstrual disorders, eye disease, piles and worms.

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