Ethnobotanical study of Medicinal plants used to treat Human and Animal Diseases in Barshitakli Tehsil Dist. Akola. (MS)

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ABSTRACT

Barshitakli Taluka is an agriculturally dominated region where crops such as cotton, soybeans, wheat, and pulses are widely cultivated. Along with crop production, farmers commonly rear livestock including sheep, goats, cows, and buffaloes, making traditional veterinary medicine an important part of rural healthcare practices. The present study was conducted to document ethnobotanical knowledge related to the treatment of human and animal ailments in the villages of Barshitakli Taluka. Data were collected from June 2024 to February 2025 through seasonal field visits to different villages. A comprehensive ethnobotanical survey was carried out using interviews and discussions with experienced tribal informants who possess traditional knowledge of medicinal plants. Information regarding plant species, their local names, parts used, preparation methods, and therapeutic applications was systematically recorded. The study highlights the significant role of indigenous knowledge in primary healthcare and emphasizes the need for proper documentation and conservation of medicinal plant resources and traditional practices for future generations.

Key Words: Medicinal Plants, Human & Animal Diseases, Barshitakli.

INTRODUCTION

Plant resources have always been an important part of human society [1]. Ethnobotany is the scientific study of the relationship between plants and people, particularly traditional knowledge of plant uses in medicine, agriculture and daily life [2]. Rural communities in India have relied on medicinal plants for centuries to treat various human diseases. Studies of ethnoveterinary medicinally important species worked out by some local ordinary peoples pursue skills of herbal medicine knowledge and practices for the better health of livestoch[3]. This knowledge has been transmitted orally from generation to generation.

Eighty percent of people in poor nations still rely on regional medicinal plants to meet their basic medical needs, according to the World Health Organization [4] [5]. With an estimated 7500 plant species utilized by various ethnic communities, medicinal plants are widely used by all segments of the Indian people. It is also known that India has the second-largest tribal population in the world, behind Africa [6] [7] The majority of people, particularly in many rural areas, rely on herbal medicines for primary healthcare due to poverty, ignorance, and the lack of access to modern medical facilities [8] .Traditional veterinary medicine is also widely practiced among farmers for treating livestock diseases such as wounds, infections, fever, and digestive problems.

The Akola district's Barshitakli Tehsil is home to a wide variety of medicinal plants, many of which are employed in conventional medical practices. Villagers in the rural and semi-forest parts of the Vidarbha region's Akola district frequently use locally accessible plants for therapeutic purposes. But a large portion of this knowledge is still unrecorded. Thus, the goal of this study is to record the medicinal plants that local people in Akola district's Barshitakli Tehsil utilize to heal illnesses in both humans and animals.

MATERIALS AND METHODS

Study Area: The study area for present research work is Barshitakli taluka. The Barshitakli Taluka lies in the Akola district of Maharashtra, is located approximately between latitude 20.57° N and longitude 77.06° E

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and at an average elevation of 312 meters. Situated in the Vidarbha region, Mostly the climate is tropical, April, May and June are the hottest months of the year and is one among 5 hottest cities in India. Rain comes from June to September and average annual rain fall in research area is 819 mm [link https://en.climate-data.org/asia/india/maharashtra/akola-2815/]. Winter is mild to moderate in Barshitakli.

It is characterized by basalt (Deccan trap) rock formations, with medium to deep black soils. So the vegetation pattern is observed mixture of agricultural, grasses, road side and patches of small forest. Cotton, soybeans, wheat, and pulses are among the often produced crops. Traditional veterinary medicine is more important because farmers also raise livestock including sheep, goats, cows, and buffaloes. Data Collection: From June 2024 until February 2025, data was gathered. Through seasonal field trips to different communities, a thorough ethnobotanical survey for human and animal ailments was conducted throughout the villages of Barshitakli Taluka. The information of seasoned tribal informants about medicinal plants was methodically recorded.

This information was cross-verified during different seasons with local herbalists and traditional practitioners. Plant specimens were taxonomically identified following the methodology of Naik (1998)(3 Navalsing).Information was collected through: Interviews of Vaidu and Hakim, Discussions with elderly villagers and farmers, Direct field observation of medicinal plant usage

Data recorded included botanical name of plant, Local name, Plant family, Medicinal uses for humans and animals

RESULT AND DISCUSSION

The present study reveals that the local communities of Barshitakli taluka were using 35 plant species of medicinally important plants belonging to 27 families. In table no: 01 their botanical names vernacular name family and ethanomedicinal use is mentioned. Local communities are using their traditional knowledge of medicinal plants to cure diseases primarily by homemade medicines by using various plant drugs. To treat the diseases and disorders various plant parts such as Root, root bark, stem, stem bark, rhizome, leaves, leaves extract, fruits and seeds were used for preparations. Sometimes the entire plant was utilized. Medicinal plants are commonly used in several forms depending on the part of the plant and the method of preparation. Powder, decoction, infusion, paste, juice, extract and tincture.

Table No: 01 Showing Plants botanical name, vernacular name, family and ethnomedicinal use.

Sr. No.	Botanical Name	Vernacular Name	Family	Ethnomedicinal use
1	Achyranthes aspera L.	Aghada	Amaranthaceae	Root pest is used to increase milk and to treat dysentery.
2	Semacarpus anacardium L.	Bibba	Anacardiaceae	Would healer, anti-inflammatory and antioxidant.
3	Annona squamosa L.	Sitaphal	Annonaceae	Worms in injuries.
4	Aristolochia bracteolate Lamk.	Gandhak	Aristolochiaceae	Kill worms and pest.
5	Pergularia daemia (Forsk.)	Utaran	Asclepiadaceae	Flatulence in animals.

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6	Launaea procumbens (L.) R. Br	Pathari	Asteraceae	Used to cure intestinal worms, stomach ache of animals
7	Balanites aegyptica	Hingan bet	Balanitaceae	purgative & anthelmintic Used in Seed cough, colic also used in snake bite.
8	Ailanthus excelsa Roxb.	Maharukh	Bersuraceae	Useful in asthma dysentery and earache.
9	Dolichandron falcata (Wall. e DC.) Seem.	Medh-shing	Bignoniaceae	Leaves are used in muscular pain back-ache and also in Piles
10	Orooxylum indicum (L. Vent)	Tendu	Bignoniaceae	Seed decoction is analgesic antitussive and anti-inflammatory. Leaf used in bronchitis.
11	Bombax ceiba L.	Katesawar	Bombacaceae	Demulcer tonic, diuretic, aphrodisiac and emetic, anti pimples.
12	Cordia dichotoma Forst. f.	Bhokar	Boraginaceae	astringent, demulcent, anthelmintic, diuretic, expectorant. Used in Urinary passages, diseases of lungs, snake-bite and spleen
13	Cadaba fruticose	Takala	Capparidaceae	Used in dysentery and body pain, antidote against poisoning, stimulant, and antiscorbutic.
14	Cassine glauca	Bhutkes	Celastraceae	Increases milk
15	Terminalia arjuna W. & A.	Arjun	Combrataceae	Heals wounds, used in headache and cardiotonic.
16	Terminalia bellirica (Gaertn.) Roxb.	Behada	Combretaceae	Wound healing, important ingredient of many ayurvedic preparation.
17	Euphorbia tirucalli L.	Sher	Euphorbiaceae	Purgative, Latex is used in asthma cough earache

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				neuralgia rheumatism, toothache and wart.
18	Acalypha indica L.	Lokhandi	Euphorbiaceae	Used for wounds.
19	Butea monosperma	Palas	Fabaceae	Anthelmintic, used in piles, ulcer menstrual disorders, cold and cough seeds are used as animal medicine.
20	Enicostema axillare (Lam) Raynal	Nai	Gentianaceae	Fever and anorexia in animals.
21	Abelmoschus Manihot (L.)	Ran bhendi	Malvaceae	use for dysentery in animals
22	Abutilon indicum	Shikka	Malvaceae	Lal-khurguti in animals
23	Thespesia populnea (L.)	Parosa Pimpal	Malvaceae	To arouse sex in Animals
24	Acacia catechu	Khair	Mimosaceae	Antileprotic, astringent and antioxidant used in cases of diarrhoea
25	Prosopis cineraria	Saundad	Mimosaceae	Used for leucorrhoea
26	Ficus hispida	Bhui Umbar	Moraceae	Anti diabetic, riped furits used for ulcer and burns.
27	Aegle marmelose Corr. ex. Roxb	Bel	Rutaceae	Digestive, demulcent, antipyretic, Would healer, fruits are used in constipation, chronic dysentery dyspepsia.
28	Limonnia acidissima	Kawat	Rutaceae	Antiscorbutic, antibilious, demulcent, purgative.
29	Sapindus emarginatus	Ritha	Sapindaceae	Tonic emetic purgative expectorant. Fruits are use to wash hairs.
30	Madhuca longifolia (J. Macb)	Moh	Sapotaceae	Bark decoction is used to treat diabetes, diarrhea, itching and strengthening gums. Flowers are tonic, stimulant and diuretic.
31	Solanum virginianum L.	Bhui-ringni	Solanaceae	Increases vision in animals.
32	Sterculia urens Roxb.	Bhutya	Sterculiaceae	Used in Rheumatic pain

33	Helicteres isora L.	Murad sheng	Sterculiaceae	Used to treat Dysentery in animals and humans.
34	Holoptelea integrifolia	Vaval/pital papadi	Ulmaceae	Used in boiled bark applied on rheumatic swellings. Powdered bark applied on sticky juice to cover theboils bark liquid.
35	Cissus quandrangularis L.	Kandvel	Vitaceae	Used topically for Bone fracture.

Leaves and rhizomes are used most widely followed by other parts.[9]. Such plant were and their ethnomedicinal importance was quoted by various researchers [10][11][12]. Plants contains various vitamins minerals, antioxidants, alkaloids and other active chemical component which acts to cure various diseases[10]. In India, enough attention has not been paid to the traditional veterinary remedies. Even the 'Rigveda', 'Atharveda' and eight divisions of 'Ayurvda', the pioneer documents with curative properties of plants have not provided much information on veterinary remedies [13], except few. Recently, A Dictionary of Ethnoveterinary Plants of India have been brought out [14] though herbal practitioner are using plants as medicine to treat animals and such results were supported by Patil and co workers [15].

CONCLUSION

Barshitakli taluka is rich in ethnomedicinal plants species diversity. Ethnomedicinal plants playing significant role in life of day-to-day life of community. Elderly tribal people have a wealth of traditional knowledge about plants. Unsustainable use of land resources has serious negative effects on the flora of this region. This knowledge is tested ant tired form generations. So these drugs, although crude, have established credibility. After satisfying with its toxicity tests, the drugs can be officially prescribed. The crude drugs must be validated by recent techniques and the dose must be determined.

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