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Ethnomedicinal value in certain solanaceae members

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Abstract
Members of the Solanaceae family that are used medicinally were gathered via questionnaires and in-person interviews conducted while on field excursions. This study documents 14 plant species in total. Tribal members' use of medicinal plants is listed along with their botanical name, family, local name, components used, preparation method, and administration. Skin diseases, poison stings, stomachaches, neurological disorders, coughs, fevers, body aches, jaundice, rheumatism, dysentery, and headaches were the most common ailments treated by the recorded medicinal plants. The important family plants used by them are *Capsicum annuum, Capsicum frutescens, Datura innoxia, Datura metel, Lycopersicon esculentum, Nicotiana tobaccum, Physalis minima, Solanum dulcamara, Solanum melongena, Solanum nigrum, Solanum tuberosum, Solanum violaceum, Solanum virginianum* and *Withania somnifera*. This study used by the treatment of primary healthcare.

Keywords: Medicinal value, solanaceae members, ethnobotany

Introduction
In essence, ethnobotany is an anthropological approach to botany that examines the interaction between prehistoric human societies and their plant environment. Primitive human culture primarily recognizes the value of plants in relation to their diverse economic applications. Around the world, tribal people and other forest dwellers take great care to preserve indigenous cultures. Any developmental design that addresses the wellbeing of tribal people and their environment must first include an Ethan botanical investigation (Rao, 1996) [1].

Indian medicinal plants have been used in traditional medical systems to treat a wide range of illnesses, including bronchial asthma, chronic fever, cold, cough, malaria, dysentery, convulsions, diabetes, diarrhea, arthritis, emetic syndrome, skin conditions, insect bites, and other illnesses that affect the stomach, liver, heart, and immune system (Chopra *et al.*, 1993; Sen., 1993) [2, 3].

For thousands of years, traditional medicine has made use of plants (Abu-Rabia, 2005) [4]. Over many years, knowledge about medicinal plants has been gathered from several medical systems, including Siddha, Ayurveda, and Unani. According to reports, 2500 plant species are used as medicine by traditional healers in India (Pei, 2001) [5]. Interest in researching medicinal plants and their traditional applications around the globe has grown over the past few decades (Lev, 2006) [6]. The conservation and use of biological resources depend on the documentation of indigenous knowledge through ethanobotanical research.

Material and Methods
Rewa is located at 24°32’ N 81°18’ E. It has an average elevation of 275 meters (902 feet). Various information’s related to the antiseptic property of plants were gathered.

The present investigations were dealt with 14 species of Solanaceae, Such as, *Capsicum annuum, Capsicum frutescens, Datura innoxia, Datura metel, Lycopersicon esculentum, Nicotiana tobaccum, Physalis minima, Solanum dulcamara, Solanum melongena, Solanum nigrum, Solanum tuberosum, Solanum violaceum, Solanum virginianum* and *Withania somnifera providing some essential therapeutic compounds to cure different aliments.* Above the all Solanaceae members from various place in Rewa district, Madhya Pradesh, India.

Solanaceae members-

S.No.	Botanical name	Vernacular name	Uses
1.	*Capsicum annuum* L.	Lal Mirch	Used topically to treat pain associated with osteoarthritis, shingles, rheumatoid arthritis, post-herpetic neuralgia, trigeminal neuralgia, diabetic neuropathy, fibromyalgia, and back pain.
2.	*Capsicum frutescens* L.	Longi mirch	Commonly used for rheumatoid arthritis (RA), osteoarthritis, and other painful conditions. It is also used for digestion problems, conditions of the heart and blood vessels, and many other conditions, but there is no good scientific evidence for many of these uses.
3.	*Datura innoxia* Mill.	Dhatura	the treatment of insanity, fevers with catarrh, diarrhoea, scabies, piles, ulcers, colds, asthma, Cardiac disorders, Impotency, Antispasmodic, Malaria, Baldness and skin diseases.
4.	*Datura metel* L.	Sada dhatura	the treatment of stomach and intestinal pain that results from worm infestation, toothache, and fever from inflammation. The juice of its fruit is applied to the scalp, to treat dandruff and falling hair.
5.	*Lycopersicon esculentum* Mill	Tamatar	The skin of tomato fruits is a good source of lycopene, a substance that has been shown to protect people from heart attacks.
6.	*Nicotiana tobaccum* L.	Tamabaku	Nicotine is a tropane alkaloid. It makes a great insecticide
7.	*Physalis minima* L.	Banphutka	Leaf extract used as a decoction and inhalation for cure cold and cough.
8.	*Solanum dulcamara* L.	Bittersweet	Bittersweet is a poisonous plant that has a long history of use in the treatment of skin diseases, warts, tumours, felons etc.
9.	*Solanum melongena* L.	Jangli bhanta	Fruit helps to lower the blood cholesterol levels, and is suitable as a part of a diet to help regulate high blood pressure.
10.	*Solanum nigrum* L.	Makoi	The juice taken from fresh leaves are used to treat for stomach ulcer.
11.	*Solanum tuberosum* L.	Aalu	The treatment of peptic ulcers, bringing relief from pain and acidit.
12.	*Solanum violaceum* Ortega	Barhanta	The plant is used to treat cough, asthma, fever, dysuria, worms, nervous complaints, vomitting and skin diseases.
13.	*Solanum virginianum* L.	Bhatkattaiya	The plant is used for nervous and respiratory disorders, cough rheumatism, colic, asthama, sore throat and skin diseases. Decoction of roots is given in fever and spermatorrhoea.
14.	*Withania somnifera* (L) Dunal	Ashwagandha	Fresh leaves are used as muscle contract, body pain, and gas problems.

Preservation of Plantspecimens

In terms of gathering plant materials, drying, mounting, preparing, and preserving plant specimens, standard procedure was adhered to. Three separate voucher specimens of medicinal herbs were gathered, processed, and recognized. Correctly named plants were grouped alphabetically by family name, colloquial name, and therapeutic application. Every preserved specimen was placed to the Govt. Model Science College's Department of Botany in Rewa, Madhya Pradesh.

Results and discussion

According to the current study, fresh plants or tubers are frequently used to treat common illnesses like whooping cough, leucoderma, stomach ache, ear pain, and finger abuse. Knowledgeable locals provided the information on the plants utilized, the application method, and the dosage, which was then cross-checked, rigorously examined, and recorded. Voucher specimens were prepared as best as possible. Additionally, local names were gathered. They differ depending on the location and the tribe. With the use of floras, current monographs, and revisions, every specimen that was gathered was recognized.

These herbs are mostly used to treat digestive, metabolic, hepatic, and central nervous system issues as well as cardiovascular issues. They can be used as a medication or supplement to treat or manage a variety of illnesses because of their potential to have a major therapeutic impact. In certain rural areas of Tamil Nadu, herbal treatments constitute an essential part of traditional medicine. The plants are frequently used as antiseptics, anti-inflammatory agents, and to cure infections, illnesses, and dematophytes, such as candidiasis (Jain and Patole, 2001) [8].

Seldom are dried and stored materials used; the majority of species used to make herbal medication are harvested fresh. The leaves, stem, bark, and roots were the most popular plant parts utilized in the herbal compositions, followed by flowers, seeds, and fruits.

The fruit of *Solanum melangena* has numerous therapeutic benefits, including lowering blood cholesterol and assisting in the regulation of high blood pressure when included in a diet.

Solanum tuberosum decoction used to treat peptic ulcers causes issues. In traditional medicine, it has been used as a diuretic, anthelmintic, antidiabetic, expectorant, and hepatoprotective. Additionally, it has diuretic, arolithiasis, anti-inflammatory, and antibacterial and cytotoxic properties (Manokaran *et al.*, 2008) [9].

Certain species of Solanaceae are most important in medicinal field. Datura stramonium leaf paste is mixed with Cucuma aromatic rhizomes are applied on the swellings for quick remedy till the swelling reduces of skin. Few drops of leaf juice is poured into ear to treat earache (Jeeva *et al*., 2007) [10]. Leaf paste of Solanum nigrum is applied externally to treat stomachache. Whole plant parts are taken as food to treat cough (Ramya *et al*., 2008) [11].

Fruit from *Solanum tuberosum* should not be consumed since it contains high levels of the poisonous alkaloid solanine. The carbohydrate content of potatoes-roughly 26 grams in a medium potato-is its most well-known characteristic. Starch is the most common type of this carbohydrate. Because a tiny but important percentage of this starch is not broken down by the stomach and small intestine's enzymes, it basically makes it to the large

intestine undigested. This is thought to provide health advantages and physiological effects comparable to those of fiber: In addition to providing protection against colon cancer, it also improves insulin sensitivity and glucose tolerance, lowers triglyceride and plasma cholesterol levels, promotes satiety, and may even decrease fat storage. How potatoes are prepared has a big impact on how much resistant starch they contain. Resistant starch is greatly increased when potatoes are cooked and then cooled. For instance, resistant starch makes up around 7% of cooked potato starch and rises to roughly 13% when cooled.

Because of their many qualities, some species' applications have become more significant. For instance, Lycopersicon esculentum is used to treat bleeding disorders, gout, raktapita, and tuberculosis (Rajurkar *et al*., 2009) [12] and helpful in the treatment of leg discomfort and piles. Extract from *Solanum virgianum* is used to treat urinary disorders, whereas *Withania somnifera* is used to treat eczema and chest pain. In their research on the ethnobotanical applications of plants, Jain and Patole (2001) [8] have noted comparable actions in some plant species, including Physalis minima and Solanum nigrum.

Conclusion

People now use plant medicine as an alternate kind of treatment. The absence of adverse effects is the primary cause of the comeback of herbal treatments in the West. Individual respect and a focus on self-help are important. In addition to this revival. Beyond their traditional use as a pharmacopoeia, plants are now playing a larger role in medicine. By incorporating new ideas and concepts from traditional plant medicine around the globe, the current study of traditional plant medicine using contemporary theories and approaches might enhance herbal medications. In the future, the role of traditional plant medicine in the healthcare system will only grow.

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