Herbal remedies for jaundice: An exploration of traditional knowledge of India

ABSTRACT

Jaundice remains a significant public health concern, particularly in developing and underdeveloped countries where access to healthcare is limited. The present study aims to document the ethnomedicinal use or natural remedies of medicinal plants for jaundice treatment among tribal communities in Odisha, India. A field survey was conducted among eight tribal communities, including Santhal, Ho, Munda, Bathudi, Kandha, Khadia, Bhumija, and Kisan, using a semi-structured questionnaire. The study identified 36 medicinal plants from 30 families that are traditionally used to treat jaundice. Different plant parts were utilized, with leaves being the most frequently used. This study emphasizes the importance of preserving traditional knowledge and explores the potential of these medicinal plants as promising leads for future research and drug development. The findings of the present study provide a foundation for further investigation into the therapeutic potential of these medicinal plants and their possible integration into modern healthcare systems.

Key words: Ethnomedicinal, liver disfunction, plant parts, mode of use

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INTRODUCTION

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Jaundice is a medical condition marked by yellowing of the skin and the whites of the eyes, caused by an accumulation of bilirubin in the body. It is particularly common in newborns, often appearing within the first week of life and sometimes requiring hospital admission. The yellowing typically begins on the face and gradually spreads to the chest, abdomen, limbs, and soles of the feet. Jaundice affects more than 70% of preterm infants and can be a source of serious concern for both newborns and their parents. The condition may result from various underlying causes, including liver dysfunction, bile duct obstruction, and haemolytic anaemia. Depending on the cause and severity, jaundice can range from a mild, self-limiting condition to a serious, potentially life-threatening disorder (Basati et al., 2019). Despite advancements in modern medicine, jaundice continues to be a major public health concern, especially in developing countries where access to healthcare is limited (Gofur et al., 2022; Srivastav and Prajapati 2023; Tewari et al., 2017). Traditional medicine has been used for centuries to treat jaundice, with various cultures relying on medicinal plants to relieve symptoms and support recovery. In many regions, especially rural areas with limited access to modern healthcare, these plants remain a primary form of treatment for jaundice (Fok 2001; Crabb 2004; Amiri et al., 2014; Deb et al., 2016; Khedmat et al., 2021; Devi et al., 2025). For centuries, traditional medicine has played a vital role in treating jaundice across different cultures and regions. The use of medicinal plants in this context is deeply embedded in ancestral knowledge, passed down

through generations. In India, numerous plants like *Andrographis paniculata, Phyllanthus amarus,* and *Tinospora cordifolia* have long been utilized for managing jaundice. Valued for their liver-protective properties, these plants are commonly prepared as decoctions, powders, or juices to help relieve jaundice symptoms and support liver function (Janghel et al., 2019; Raghuvanshi et al., 2021). Similarly, in China, traditional medicine has long incorporated plants like *Artemisia capillaris, Bupleurum chenense* and *Gardenia jasminoides* in the treatment of liver disorders, including jaundice. These plants are thought to have detoxifying effects on the liver, stimulate bile production, and reduce inflammation, all of which contribute to the healing process in jaundice (Zhao et al., 2014). In Africa, a diverse range of medicinal plants is used to treat jaundice and other liver-related ailments. Plants such as *Justicia schimperiana, Croton macrostachyus,* and *Phytolacca dodecandra* are notable examples traditionally used to support liver function and relieve symptoms of jaundice (Muluye and Ayicheh 2020). *Silybum marianum* (Milk thistle), originally native to Southern Europe and parts of Asia, is now widely distributed across the globe. It has been used for centuries in traditional medicine to treat gastrointestinal disorders and bile duct-related conditions. The plant contains betaine, a protein known for its hepatoprotective properties, and studies have shown that milk thistle extracts can safeguard liver cells (hepatocytes) from damage caused by toxins such as carbon tetrachloride, ethanol, and acetaminophen (Abbaszadeh et al., 2018). In recent years, interest in medicinal plants as a treatment for various diseases, including jaundice, has increased significantly, largely due to the growing demand for new and effective therapeutic options for this condition (Hossain et al., 2025). This documentation aims to provide a comprehensive study of the medicinal plants used for the treatment of jaundice by different tribal communities such as Santhal, Ho, Munda, Bathudi, Kandha, Khadia, Bhumija, and Kisan with a focus on their traditional uses, plant parts used and mode of uses through field survey conducted in different tribal regions of Odisha.

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METHODOLOGY

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The survey was designed to gather primary data from local people of Odisha, West Bengal, Jharkhand, Haryana, Chhattisgarh and Karnataka and states during 2023-2024, regarding their knowledge and practices related to the use of medicinal plants to cure jaundice. A semi-structured questionnaire was developed to capture quantitative data. The questionnaire covers the types of plants used, methods of preparation and administration, perceived efficacy and safety, and cultural beliefs surrounding the use of these plants (Nayak and Kumar, 2023). Field surveys were conducted in selected regions utilizing the questionnaire to gather data and the literature review on existing research regarding the use of medicinal plants for the treatment of jaundice (Jena et al., 2025; Cotton 1996).

RESULTS AND DISCUSSION

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For centuries, medicinal plants have been used to treat jaundice, a condition marked by yellowing of the skin and eyes resulting from liver or gallbladder dysfunction (Pradhan et al., 2025; Sharma et al., 2025). A field survey conducted among various tribal communities in Odisha, including the Santhal, Ho, Munda, Bathudi, Kandha, Khadia, Bhumija, and Kisan communities revealed the use of various ethnomedicinal plants for jaundice treatment. The

study identified 36 medicinal plants from 30 families including Acanthaceae, Asteraceae, Euphorbiaceae, Fabaceae, Phyllanthaceae that are traditionally used to treat jaundice. Different plant parts were utilized in the preparation of traditional remedies, with leaves being the most frequently used, followed by roots, bark, whole plants, tubers, fruits, flowers, and corms. Notably, the Santhal tribe in Mayurbhanj district uses dried corm powder of *Amorphophallus paeoniifolius*, while the Kandha community uses juice of *Argemone mexicana* to treat liver and jaundice. Other communities, such as the Bhumija and Kisan, use leaves decoction and bark infusions of specific plants, like *Diospyros montana*, to treat jaundice. The detailed information on the ethnomedicinal uses of the studied plants is summarized in Table 1.

Table 1: Ethnomedicinal plants used by tribal communities of Odisha

Botanical Name	**Family**	**Local Name**	**Plant part(s) use**	**Mode of Use(s)**
Achyranthes aspera	Amaranthaceae	Apamarga	Leaves & stem	Juice of leaf and stem is taken to treat jaundice
Amorphophallus paeoniifolius	Araceae	Olua	Corm	Dried corm powder with warm water is taken to treat jaundice
Andrographis paniculata	Acanthaceae	Kalmegh	Leaves	Leaves decoction is used to treat jaundice and liver problems
Argemone mexicana	Papaveraceae	Satyanasi	Whole plant	Whole plant juice is used in the treatment of jaundice
Asparagus racemosus	Asparagaceae	Satavari	Tuber	Tuber along with rock sugar is taken in the treatment of jaundice
Baliospermum solanifolium	Euphorbiaceae	Danti	Root	Root infusion is taken to treat jaundice
Boerhavia diffusa	Nyctaginaceae	Punarnava	Leaves	Leaves are consumed as leafy vegetables and also helps to treat jaundice
Carica papaya	Caricaceae	Amruta bhanda	Leaves	Leaves decoction is taken to treat jaundice
Curculigo orchioides	Amaryllidaceae	Talamuli	Tuber	Tuber paste is applied on the body
Cynodon dactylon	Poaceae	Dhuba ghass	Whole plant	Whole plant is pounded with honey and taken to treat jaundice
Dioscorea dumetorum	Dioscoreaceae	Ban alu	Tubers	Tubers are used in jaundice
Diospyros montana	Ebenaceae	Halada	Bark	Bark is infused and used for jaundice

Ecbolium viride	Acanthaceae	Ishwarjata	Root	Root decoction is given to treat jaundice
Eclipta prostrata	Asteraceae	Bhrinraj	Leaves	Leaves juice is used in jaundice
Erythrina variegata	Fabaceae	Paladhua	Bark	Bark is boiled and taken treat jaundice
Ficus religiosa	Moraceae	Pipal	Bark	Decoction of bark is taken to treat jaundice
Haldina cordifolia	Rubiaceae	Kuruma	Bark	Paste of the bark is used in treating jaundice
Hemidesmus indicus	Apocynaceae	Anantamula	Root	Root decoction with other herbs taken in jaundice
Ipomoea vitifolia	Convolvulaceae	Paninai	Whole plant	Whole plant is boiled and taken used in jaundice
Justicia adhatoda	Acanthaceae	Basang	Leaves	Leaf decoction is taken
Kalanchoe pinnata	Crassulaceae	Amarpoi	Leaves	Leaf juice is mixed with little water and taken
Mazus pumilus	Mazaceae	Prajapati phula	Whole plant	Whole plant decoction is used in jaundice
Mimosa pudica	Fabaceae	Lajawanti	Root	Root decoction is used to cure jaundice
Oroxylum indicum	Bignoniaceae	Fanfana	Bark	Bark is used in the treatment of jaundice
Phoenix sylvestris	Arecaceae	Tadi	Leaves	Fresh juice is useful to cure jaundice
Phyllanthus emblica	Phyllanthaceae	Aonla	Fruit	Fruit decoction with other herbs taken
Phyllanthus niruri	Phyllanthaceae	Bhumi Amla	Leaves	Leaves juice is used to cure jaundice
Picrorhiza kurroa	Plantaginaceae	Kutki	Root	Root is used to treat jaundice
Psidium guajava	Myrtaceae	Pijuli	Leaves	Leaves decoction is taken to treat jaundice
Ricinus cumunis	Euphorbiaceae	Jada	Leaves	Pounded leaves applied on the body

Sida rhombifolia	Malvaceae	Sahabeda	Root	Root along with other herbs decoction taken in jaundice
Sphaeranthus indicus	Asteraceae	Bhuin kadamba	Leaves & stem	Juice as well as plant decoction is taken to treat jaundice
Swertia chirata	Gentianaceae	Chirata	Root	Root is used to cure jaundice.
Terminalia chebula	Combretaceae	Harida	Fruit	Fruit powder mixed with water helps to treat jaundice
Tinospora cordifolia	Menispermaceae	Giloy	Stem	Stem powder infusion in water taken in Jaundice
Woodfordia fruticosa	Lythraceae	Dhatiki	Flower	Flower paste is used

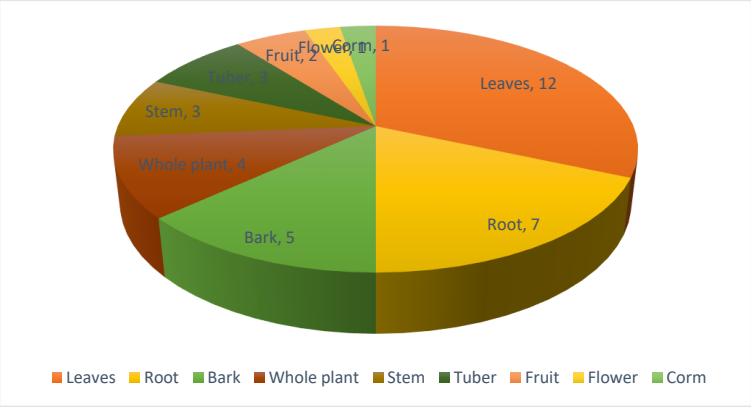

Figure 1: Frequency of plant part used in the treatment Jaundice

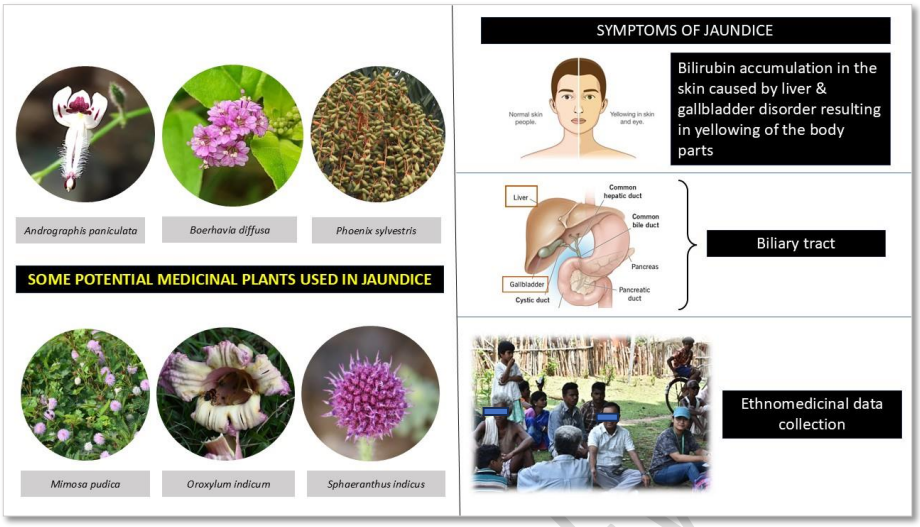

Figure 2: Symptoms and potential medicinal plants used in Jaundice

CONCLUSION

This study demonstrates the importance of traditional knowledge in the treatment of jaundice that illustrates the diverse array of medicinal plants used. The findings suggest that the study plants may offer valuable leads for the discovery of new therapeutic agents. Further investigation into the bioactive compounds and pharmacological properties of these plants is called for to fully explore their potential.

CONFLICT

The authors report no conflicts of interest.

COMPETING INTERESTS DISCLAIMER:

Authors have declared that they have no known competing financial interests OR non-financial interests OR personal relationships that could have appeared to influence the work reported in this paper.

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