**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 of selected states (Odisha, West Bengal, Jharkhand, Haryana, Chhattisgarh and Karnataka). A field survey was conducted 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

**INTRODUCTION**

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 (Sahu et al., 2020; Khedmat et al., 2021). 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). 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.

**METHODOLOGY**

The survey was designed to gather primary data from local people of Odisha, West Bengal, Jharkhand, Haryana, Chhattisgarh, and Karnataka states during 2023-2024, regarding their knowledge and practices related to the use of medicinal plants to cure jaundice. During different floristic works, the present study was carried out in selected states by different authors. 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 areas of mentioned above states 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**

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. It was noticed that among the enumerated plants used in jaundice, leaves are more used followed by roots, bark, whole plants, stem, tuber, fruits, flowers, and corm (Figure 1). The mode of uses indicated that leaves are more useful in the treatment of jaundice. The most commonly used medicinal plants along with symptoms of jaundice is illustrated in the Figure 2. The most common mode of uses are juice, decoction, infusion, paste and consumed as vegetable (Table 1). It was observed that the most common plants which are used to treat jaundice are *Achyranthes aspera, Andrographis paniculata, Boerhavia diffusa, Carica papaya, Ficus religiosa, Hemidesmus indicus, Mimosa pudica, Phyllanthus emblica, Psidium guajava* and *Tinospora cordifolia.*

**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 ofjaundice |
| *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

Other researchers from different countries have documented the ethnomedicinal uses of plants able to cure jaundice. Amiri et al., (2014) reported 37 plants used to cure jaundice from Iran. Janghel et al., (2019) documented 55 plants whereas Raghuvanshi et al., (2021) documented 87 plants from Himalayan regions. The above data showed that future research should focus on isolating and characterizing the bioactive compounds responsible for the therapeutic effects of these medicinal plants. This could lead to the development of new drugs or herbal formulations for treating jaundice and other liver-related disorders. Additionally, *in-vitro* and *in-vivo* studies are necessary to understand the mechanisms of action and validate the efficacy and safety of these plants. Pharmacological investigations and clinical trials can help establish the therapeutic potential of these plants and their derived compounds. Furthermore, standardization of herbal preparations and quality control measures are essential to ensure consistency and safety. By exploring the molecular mechanisms and potential synergies between different plant compounds, researchers can develop more effective treatments. Integrating traditional knowledge with modern science can lead to innovative healthcare solutions. Collaboration between traditional healers, researchers, and healthcare professionals can facilitate the development of evidence-based herbal medicines. This approach can also help preserve traditional knowledge and promote sustainable use of medicinal plants, ultimately contributing to improved healthcare outcomes.

**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. The present study highlights the significance of traditional knowledge in the treatment of jaundice using medicinal plants like *Andrographis paniculata, Phyllanthus amarus, Tinospora cordifolia*, and other mentioned plants. These plants have been used for centuries in various tribal communities to relieve symptoms and support recovery from jaundice. The documentation of these plants and their traditional uses provides valuable insights into the potential therapeutic properties of these species. The study's findings suggest that these medicinal plants could offer promising leads for the development of new treatments for jaundice. However, further research is necessary to validate their efficacy and safety through clinical trials and pharmacological investigations. Given that jaundice can lead to severe complications and even death if left untreated or poorly managed, it is crucial to explore alternative and complementary therapies that can improve healthcare outcomes. According to the World Health Organization, jaundice is a significant cause of morbidity and mortality in many developing countries, with neonatal jaundice alone accounting for a substantial number of deaths worldwide. By integrating traditional knowledge with modern science, researchers can develop evidence-based herbal medicines that can help reduce the burden of jaundice-related deaths. The conservation and sustainable use of these medicinal plants are also essential to ensure their continued availability for future generations. Ultimately, this study contributes to the growing body of evidence on the importance of traditional medicine in addressing public health concerns, particularly in resource-poor settings where access to modern healthcare is limited. By exploring the therapeutic potential of these plants, we can work towards reducing jaundice-related mortality and improving healthcare outcomes for communities worldwide.

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Consent

Oral Prior Informed Consent (PIC) was taken from the informants and discussed regarding the aims of present documentation. After, their agreement, discussion on plant utilization was started and noted down the information by the authors.

**CONFLICT**

The authors report no conflicts of interest.

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