**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

**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. 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.

**METHODOLOGY**

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**

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

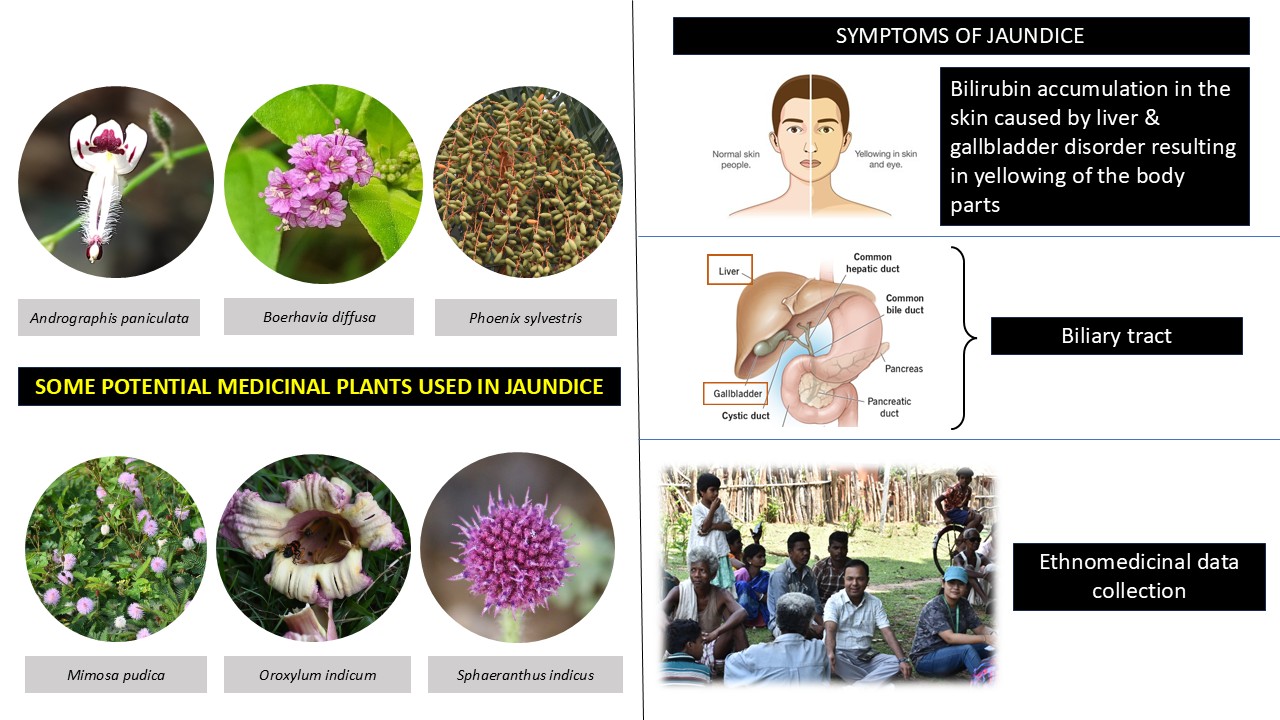


Figure 2: Symptoms and potential medicinal plants used in Jaundice

**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.

**REFERENCES**

Abbaszadeh S, Andevari AN, Koohpayeh A, Naghdi N, Alizadeh M, Beyranvand F, Harsej Z. (2018). Folklore medicinal plants used in liver disease: A review. International Journal of Green Pharmacy. 12 (Suppl 3): S463.

Amiri MS, Joharchi MR and Yazdi MET. (2014). Ethno-medicinal plants used to cure jaundice by traditional healers of Mashhad, Iran. Iranian Journal of Pharmaceutical Research. 13 (1): 157-162

Basati G, Anbari K, Abbaszadeh S and Hamid M. (2019). Medicinal plants used for neonatal jaundice in Shahrekord: An ethnobotanical study. Journal of Medicinal Plants and By-products. 2: 201-206.

Cotton CM. (1996). Ethnobotany: Principles and applications. John Wiley and Sons Ltd., Chichester. Pp. 1-80.

Crabb C. Science meets tradition and identifies herbal treatment for jaundice. (2004). Bulletin of the World Health Organization. 82(2):154.

Deb D, Datta BK, Debbarma J, Deb S. (2016). Ethno-medicinal plants used for herbal medication of jaundice by the indigenous community of Tripura, India. Biodiversitas. 17: 256-269. Doi: 10.13057/biodiv/d170137

Devi R, Devi RS, Mahendru N, Panda S, Satapathy KB and Kumar S. (2025). Ethnobotanical studies in Lokatak Lake, Manipur, India. Indian Forester. 151(4): 340‐344.

Fok T. (2001). Neonatal jaundice-traditional Chinese medicine approach. Journal of Perinatology. 21(Suppl 1): S98-S100. Doi: 10.1038/sj.jp.7210643

Gofur NRP, Gofur ARP, Soesilaningtyas, Gofur RNRP, Kahdina M and Putri HM. (2022). Jaundice clinical manifestation and pathophysiology: A review article. Biomedical Journal of Scientific & Technical Research. 41(4): 32938-32941. Doi: 10.26717/BJSTR.2022.41.006641

Hossain E, Jaiswal A, Yadav R, Kaminee, Lal S and Kumar S. (2025). Ethnomedicinal plants used to treat fever. Ethnobotany of India, Volume 1. Hossain E, Jaiswal A, Roy BC, Kumar S (Eds.). Ambika Prasad Research Foundation, Odisha, India. Pp. 52-62.

Janghel V, Patel P and Chandel SS. (2019). Plants used for the treatment of icterus (jaundice) in Central India: A review. Annals of Hepatology. 18(5): 658-672. Doi: 10.1016/j.aohep.2019.05.003

Jena N, Vimala, Singh B, Patra A, Sharma BP, Hossain E and Kumar S. (2025). Methods for ethnobotanical data collection, phytochemistry, antioxidant, anthelmintic, and antimicrobial activities for pharmacological evaluation of medicinal plants. Journal of Biodiversity and Conservation 9(2): 87-107.

Khedmat L, Mojtahedi SY, Moienafshar A. (2021). Recent clinical evidence in the herbal therapy of neonatal jaundice in Iran: A review. Journal of Herbal Medicine. 29: 100457. Doi: 10.1016/j.hermed.2021.100457

Muluye B and Ayicheh MW. (2020). Medicinal plants utilized for hepatic disorders in Ethiopian traditional medical practices: a review. Clinical Phytoscience. 6:52. Doi: 0.1186/s40816-020-00195-8

Nayak S and Kumar S. (2023). Medicinal plants used by tribals of Odisha. State Medicinal Plants Board (SMPB) in association with Ambika Prasad Research Foundation, Odisha, India.

Pradhan S, Mohanty JN and Kumar S. (2025). Ethnomedicinal plants used by Santhal Community of India. Annals of Agri-Bio Research. 30 (1): 86-97.

Raghuvanshi D, Dhalaria R, Sharma A, Kumar D, Kumar H, Valis M, Kuča K, Verma R and Puri S. (2021). Ethnomedicinal plants traditionally used for the treatment of jaundice (icterus) in Himachal Pradesh in western Himalaya-a review. Plants. 10(2): 232. Doi: 10.3390/plants10020232

Sharma BP, Chaudhary V, Sankhyan P and Kumar S. (2025). Ethnobotanical knowledge of Gujjar tribe of Himachal Pradesh, India. In. Ethnobotany of India, Volume I, Hossain E, Jaiswal A, Roy BC, Kumar S (Eds.). Ambika Prasad Research Foundation, Odisha. Pp. 63-75.

Srivastav Y and Prajapati A. (2023). Brief overview of jaundice and its current treatment options. International Journal of Pharmaceutics and Drug Analysis. 11(3): 72-85.

Tewari D, Mocan A, Parvanov ED, Sah AN, Nabavi SM, Huminiecki L, Ma ZF, Lee YY, Horbanczuk JO and Atanasov AG (2017). Ethnopharmacological approaches for therapy of Jaundice: Part II Highly used plant species from Acanthaceae, Euphorbiaceae, Asteraceae, Combretaceae and Fabaceae families. Frontiers in Pharmacology. 8:519. Doi: 10.3389/fphar.2017.00519

Zhao CQ, Zhou Y, Ping J and Xu LM. (2014). Traditional Chinese medicine for treatment of liver diseases: progress, challenges and opportunities. Journal of Integrative Medicine. 12(5): 401-408. Doi: 10.1016/S2095-4964(14)60039-X