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## A BRIEF REVIEW ON MEDICINAL VALUE OF CURCUMA CAECIA

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### Abstract

Plants have historically been used as a significant resource for healthcare. Curcuma caecia has reportedly been used in traditional medical systems for the treatment of a wide variety of diseases and conditions, including leucoderma, asthma, tumors, piles, bronchitis, and others. Bruises, contusions, and rheumatic pains can all benefit from applying the paste. Although the rhizomes and other plant components may be utilized medicinally, they are most often used to treat fever, cough, and asthma in adults and children. Antioxidant, antibacterial, antipyretic, larvicidal, insecticidal, antimicrobial, wound healing, and anti-hyperglycemic properties of curcuma caecia have all been the subject of scientific investigation. Aiming to provide a comprehensive overview of the research on its phytochemistry, traditional use, and medicinal investigations, this study aims to cover all the bases. Key-Words: *Curcuma caecia*, Phytochemistry, Traditional uses, Therapeutics

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### Introduction :

Eighty species make up the genus Curcuma, which belongs to the Zingiberaceae family and has long been employed in traditional medical practices such as Ayurveda, Siddha, and Unani. Curcuma longa has been the subject of the most research because of its remarkable medicinal potential<sup>1</sup>. However, the North East Herb Curcuma Caecia, also known as Kali Haldii, is a species of turmeric that is less well-known. The lamina of this leaf is marked with a rich violet spot (fig. 1). A paste prepared from the rhizome is used to treat diarrhea and as a treatment for rheumatic pain, sprains, and bruises due to its fragrant, carminative, and stimulating properties.

3. Studies on the chemical components of

Curcuma Caecia, particularly in India, have shown that the plant's oils have antibacterial and antifungal activities. When the rhizomes are combined with either mustard or sesame oil during cooking, the resulting paste may be applied topically to the area of the body suffering from rheumatism and discomfort. Tribal and non-tribal people in the Mayurbhanj area of Odisha, India, utilize the plant to cure joint ailments (rheumatism, arthritis, gout, and lumbago), according to the results of an ethnobotanical study conducted by Central Botanical Laboratory, Howrah (W. B.). Commonly Used Methods Kali haldi is utilized all across the globe,

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both for its rhizome and its leaves. It is taken to improve mental and cardiovascular health. Author to Whom Correspondence Should Be Sent The address for Leucoderma, piles, bronchitis, asthma, tumors, tuberculous glands of the neck, enlarged spleen, and epilepsy are among conditions that rhizomes are used to cure. Epileptic fits, allergic reactions, and inflammation. Dried rhizome and leaves of *Curcuma caecia* Roxb are used to cure piles, leprosy, asthma, cancer, wounds, fever, impotence, fertility, tooth pain, vomiting, and allergies<sup>6</sup> in North-East and Central India. When someone in Anurachal Pradesh is bitten by a snake or scorpion, they apply a paste made from fresh rhizome. Dysentery<sup>8</sup> in cattle is treated with a mixture of fresh rhizome juice and mustard oil in Assam. *Curcuma caecia* rhizome treats wounds, pox, and tumors in Asia. Stomach pain and bloating are treated by drinking a mixture of powdered tuber and water. Chemical compounds found in plants *Curcuma caecia*'s natural ingredients provide it therapeutic efficacy. Bioactive compounds including alkaloids, steroids, phenolics, and tannins are responsible for the bulk of their effectiveness. Rhizome *curcuma caecia* was extracted using n-hexane, petroleum ether (60:80), benzene, chloroform, ethyl acetate, methanol, and water, with the existence of the aforementioned main constituents<sup>11</sup> confirmed by preliminary phytochemical studies.

**Efficacy as an Antioxidant** The presence of phenolics component<sup>12</sup> is responsible for the observed antioxidant activity of methanolic extract of *Curcuma caecia* rhizomes, which was assessed using DPPH free radical scavenging. *Curcuma caecia* plants' rhizome and leaf extracts, both enzymatic and crude, have been tested for antioxidant activity terms of DPPH radical scavenging activity, hydroxyl radical-scavenging activity and reported that the non- enzymatic extracts prove to be a better scavenger of free radical in comparison to enzymatic extracts in *Curcuma* species<sup>13</sup>.

#### **Antimicrobial activity**

Recently<sup>14</sup> have reported the isolated oil from the rhizome of *Curcuma caecia* possessed high antioxidant activity, antibacterial activity and

also inhibit g +ve (*S. aureus* and *B. subtilis*) and g -ve (*E. coli*) bacteria. Essential oils comprising of mixtures of monoterpenes, sesquiterpenes, and various aliphatic hydrocarbons are potential sources of antimicrobial compounds<sup>15</sup>. Ethanolic extract of *Curcuma caecia* (EECC) showed a significant antibacterial activity against *Staphylococcus aureus*. The antibacterial properties have also showed the presence of phenolic compound<sup>16</sup>.

#### **Anti Inflammatory activity**

Proteins isolated from aqueous soxhlet extraction of rhizome *Curcuma caecia* showed significant antioxidant activity which was found to be heat stable. And also showed high anti-inflammatory activity at a dose level of 100mg/kg when tested on the carrageenan rat paw model system<sup>17</sup>.

**Antiemetic activity** The ethanol extract of *Curcuma caecia* rhizome showed significant antiemetic activity on chick emetic model and compared with domperidone<sup>18</sup>.

#### **Depressant and hypnotic activity**

*Curcuma caecia* has potential therapeutic value for the management of depressive disorders. The methanol extract of *Curcuma caecia* (MECC) rhizome was evaluated for CNS depressant activities and reported that the flavonoids, saponin and tannic acid are involve for the protecting brain function from CNS disturbance antidepressant<sup>19</sup>. The analgesic activity of *Curcuma caecia* extract (MECC) was evaluated by both acetic acid induced writhing method and tail flick method in mice to assess peripheral (non-narcotic) and central (narcotic) type of activities and revealed remarkable analgesic, locomotor depressant, anticonvulsant and hypnotic activity<sup>20</sup>.

#### **Anti-ulcerogenic activity**

The anti-ulcer activity of the ethanolic extract of the rhizome of *Curcuma caecia* was experimented on four groups of albino rats and revealed that there is significant reduction of ulcer index, gastric acid volume, pepsin, free and total acidity along with increased production of gastric mucus<sup>21</sup>

This research showed that herbal products are just as effective as conventional medicines, and it suggested



### Conclusion:

be risk-free in contrast to the artificial alternative. The phytochemical and pharmacological properties of various plant components have been the focus of much recent study. The potential of curcuma caesia as a medicinal herb is supported by this review. Curcuma caesia may contain an undiscovered chemical that might be the basis for a revolutionary new medication, but further study is needed. HPLC, FTIR, NMR, and UV spectrophotometric examination are just some of the sophisticated and established procedures that may be used to further examine Curcuma caesia.

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