

Impact of Ayurvedic Drugs in the Prevention of Common Diseases and Their Comparative Medicinal Values of *Murraya koenigii* and *Tinospora cordifolia*

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ABSTRACT

Ayurveda, the ancient Indian system of medicine, relies mainly on plant-based drugs for promoting health and treating diseases. Among these, Curry Patta (*Murraya koenigii*) and Giloye (*Tinospora cordifolia*) hold remarkable medicinal importance. The present study focuses on the comparative analysis of these two plants in terms of their morphological characteristics, phytochemical composition, and therapeutic uses. Curry Patta is well known for its antioxidant, anti-diabetic, and digestive properties, while Giloye is recognized for its immunomodulatory, anti-pyretic, and anti-inflammatory actions.

Through this comparison, the study highlights the potential of these herbs as valuable natural remedies and their relevance in modern herbal drug development.

Keywords- Ayurveda, Curry Patta (*Murraya koenigii*), Giloye (*Tinospora cordifolia*), Medicinal plants, Phytochemicals, Immunity, Herbal medicine.

I. INTRODUCTION

Ayurveda is the ancient system of medicine that uses natural plant products for treatment. Curry Patta (*Murraya koenigii*) and Giloye (*Tinospora cordifolia*) are important Ayurvedic plants. Both are rich in phytochemicals and have strong medicinal values. The study compares their therapeutic uses and Ayurvedic importance.

II. CLASSIFICATION

Curry Patta (Murraya koenigii)

- Kingdom - Plantae
- Division - Angiosperms
- Class - Dicotyledonae
- Order - Sapindales

- Family - Rutaceae
- Genus - *Murraya*
- Species - *Murraya koenigii* (L.) Spreng
- Vernacular Names - Curry Leaf, Meetha Neem (Hindi), Kariveppilai (Tamil)
- Part Used - Leaves

Giloye (Tinospora cordifolia)

- Kingdom - Plantae
- Division - Angiosperms
- Class - Dicotyledonous
- Order - Ranunculales
- Family - Menispermaceae
- Genus - *Tinospora*
- Species - *Tinospora cordifolia* (Willd.) Miers
- Vernacular Names - Giloye, Guduchi, Amrita
- Part Used - Stem and Leaves

Table 1: Morphological description with habitat Features of Curry Patta (*Murraya koenigii*) & Giloye (*Tinospora cordifolia*)

Morphological Feature	Curry Patta (<i>Murraya koenigii</i>)	Giloye (<i>Tinospora cordifolia</i>)
Habit	Small aromatic tree or shrub	Large woody climbing shrub
Height	4–6 meters	Climber, spreads up to 10–12 meters
Stem	Slender, woody, greenish-brown	Thick, fleshy, greyish-green with aerial roots
Leaves	11–21 leaflets, green and aromatic	Simple, heart-shaped (cordate), bright green
Flowers	Small, white, fragrant, in clusters	Small, yellowish-green, unisexual or bisexual
Flowering Season	March–July	June–September (after monsoon)
Fruits	Small, shiny black berries	Red drupes with a single seed
Roots	Tap root system	Adventitious roots from nodes
Seed	Small, oval	Hard, round
Odour/Smell	Strong aromatic smell (citrus-like)	Odourless
Taste (Rasa)	Slightly bitter	Bitter
Part Used	Leaves, bark and stem	Stem and leaves

Curry patta Widely distributed in South India:

Kerala, Tamil Nadu, Karnataka, Andhra Pradesh. Also grows in Himalaya foothills and Central India. Cultivated in Sri Lanka, Malaysia, Myanmar and Australia. Common in tropical and subtropical regions with moderate rainfall. Grows well in loamy soil and sunny conditions.

Giloye:

Giloye is known as “Amrita” in Ayurveda, meaning “the root of immortality.” Found throughout India tropical and subtropical regions up to 1200 m altitude. Common in moist deciduous forests often climbing on trees like neem and mango. Distributed across Sri Lanka, Bangladesh, Myanmar and Parts of Africa.

Table 2: Phytochemical activity of Curry Patta (*Murraya koenigii*)

Phytochemical	Type / Compound Present	Pharmacological / Medicinal Action
Alkaloids	Mahanimbine, Girinimbine	Anti-cancer, anti-diabetic, anti-inflammatory
Flavonoids	Quercetin, Kaempferol	Antioxidant, hepatoprotective, anti-aging
Tannins	Polyphenolic compounds	Antimicrobial, wound healing, antioxidant
Glycosides	Cardiac and phenolic glycosides	Heart protective, antioxidant
Carbazole Alkaloids	Murrayazoline, Koenimbine	Anti-tumour, antibacterial, anti-inflammatory
Essential Oils	β -Caryophyllene, α -Pinene, Sabinene	Improves digestion, antibacterial, aroma and flavour agent

Table 3: Phytochemical activity of Giloye (*Tinospora cordifolia*)

Phytochemical Type	Compound Present	Pharmacological / Medicinal Action
Alkaloids	Berberine, Palmatine, Magnoflorine	Anti-diabetic, anti-inflammatory, antimicrobial
Flavonoids	Quercetin, Rutin	Antioxidant, liver protective, anti-aging
Glycosides	Cardiac and bitter glycosides	Immunomodulatory, heart protective
Steroids	β -Sitosterol	Anti-inflammatory, cholesterol-lowering
Terpenoids	Tinosporin, Tinosporide	Anti-cancer, anti-stress
Polysaccharides	Arabinogalactan, α -D-glucan	Immunity booster, anti-diabetic
Phenolic Compounds	Tannic acid, Ferulic acid	Antioxidant, protects against oxidative stress
Saponins	Tinosporaside	Anti-inflammatory, anti-allergic, improves metabolism

Table 4: Comparative Study - Curry Leaves & Giloye

Plant	Medicinal Value	Features / Traditional Use
Curry Leaves (<i>Murraya koenigii</i>)	Digestive aid, blood purifier, anti-diabetic and beneficial for hair health	Used in Ayurveda as a digestive aid, blood purifier, and traditionally for managing diabetes and hair disorders
Giloye (<i>Tinospora cordifolia</i>)	Immunity booster, antipyretic and rejuvenating tonic	Used in Ayurveda as an immunity booster, antipyretic, and rejuvenating tonic (Rasayana)

Giloe / Guduchi (*Tinospora cordifolia*):

Major Therapeutic Actions Antioxidant, antidiabetic, antimicrobial, Anti-inflammatory,

hepatoprotective. Immunomodulatory, antioxidant, anti-inflammatory, antidiabetic, hepatoprotective, anti-stress.

Common Uses

Used in treating diabetes, nausea, Hair fall, diarrhea, and skin infections. Used in treating fever, liver disorders, diabetes, arthritis, and boosting immunity.

Form of Use

Fresh leaves, dried powder, leaf extract, essential oil. Stem extract, powder, juice, or capsule form. Modern Research Findings Shows potent antioxidant and lipid-lowering effects; supports glucose metabolism and liver health. Proven to enhance immune response, reduce oxidative stress, and aid in liver protection.

Mode of Action

Carbazole alkaloids and flavonoids scavenge free radicals and inhibit inflammation. Polysaccharides and diterpenoids stimulate immune cells and improve metabolism. Pharmacological Category Antioxidant, antidiabetic, antimicrobial, Anti-inflammatory, Immunomodulator, adaptogen, antioxidant, hepatoprotective.

Ayurvedic Significance

Considered “Kadi Patta” promotes digestion and Balances doshas (Vata & Pitta). Known as “Amrita” symbol of immortality; rejuvenates the whole body.

Commercial Use

- Used in herbal cosmetics, hair oils, food flavoring, and supplements.
- Used in Ayurvedic formulations, immunity boosters, tonics, and health supplements.

III. COMMERCIAL PRODUCTS OF CURRY PATTA

- **Curry Leaf Powder** - Used as a hair mask when mixed with curd; strengthens hair roots, prevents dandruff, and reduces hair fall.
- **Dried Curry Leaves** - Added to curries, soups, stews, and chutneys to enhance flavour and provide digestive and antioxidant benefits.
- **Curry Leaf Hair Oil** - Applied with coconut oil; promotes hair growth, delays greying, and nourishes the scalp.
- **Commercial Products of Giloy**

- **Juice** - Taken daily to boost immunity, detoxify the body, and manage fever, cold, and flu.

IV. CONCLUSION

The comparative study of Ayurvedic drugs and their plant sources Curry Leaves (*Murraya koenigii*) and Giloye (*Tinospora cordifolia*) reveals their remarkable medicinal importance in traditional and modern healthcare. Curry leaves are mainly valued for their antioxidant, antimicrobial, and hair-nourishing properties, while Giloye is recognized for its immunomodulatory, antipyretic, and detoxifying effects. Both plants play a vital role in the Ayurvedic system of medicine, supporting immunity, digestion, and general wellness. Their extensive use in commercial herbal and pharmaceutical formulations demonstrates how ancient herbal wisdom continues to contribute to present-day medicinal and therapeutic advancements.

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