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DRUG REVIEW OF *GOKSHURADI KWATHA*: PHARMACOGNOSTICAL, PHYTOCHEMICAL, AND CLINICAL ASPECTS

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ABSTRACT

Gokshuradi Kwatha is a classical polyherbal decoction described in *Bhaishajya Ratnavali* under *Vatavyadhi Adhikara* and is traditionally indicated in disorders associated with aggravated *Vata Dosha*, particularly musculoskeletal, neuromuscular, and inflammatory conditions. The formulation contains five important medicinal drugs: *Gokshura* (*Tribulus terrestris*), *Eranda* (*Ricinus communis*), *Vacha* (*Acorus calamus*), *Rasna* (*Pluchea lanceolata*), and *Punarnava* (*Boerhavia diffusa*), each used in equal proportion. These ingredients possess well-documented *Vatahara*, *Shothahara*, *Vedanasthapana*, *Mutrala*, and *Rasayana* properties. Pharmacognostically, each component exhibits distinct macroscopic and microscopic features that facilitate proper identification and authentication of the raw materials. Phytochemical studies have revealed the presence of steroidal saponins, alkaloids, flavonoids, glycosides, terpenoids, and phenolic compounds, which contribute to anti-inflammatory, analgesic, antioxidant, nephroprotective, and immunomodulatory actions.

Standardization parameters such as organoleptic characters, ash values, extractive values, and chromatographic profiles are essential for ensuring quality, purity, and consistency of the formulation. Clinically, *Gokshuradi Kwatha* has shown promising therapeutic efficacy in conditions such as *Gridhrasi*, *Sandhivata*, *Katigraha*, *Mutravikara*, and other chronic inflammatory disorders by reducing pain, swelling, stiffness, and improving functional capacity. The synergistic interaction of its ingredients provides a holistic approach that addresses both symptomatic relief and correction of underlying *Dosha* imbalance. This review highlights the classical basis, pharmacognostical characteristics, phytochemical composition, and therapeutic potential of *Gokshuradi Kwatha*, emphasizing its significance as a scientifically relevant and clinically useful Ayurvedic formulation.

Keywords: *Gokshuradi Kwatha*, *Gokshura*, Pharmacognosy, Phytochemistry, *Vatavyadhi*, Clinical Efficacy

INTRODUCTION

Gokshuradi Kwatha is a classical Ayurvedic polyherbal formulation described in *Bhaishajya Ratnavali* under the chapter *Vatavyadhi Adhikara*.[1] It is composed of five medicinal plants, namely *Gokshura* (*Tribulus terrestris*), *Eranda* (*Ricinus communis*), *Vacha* (*Acorus calamus*), *Rasna* (*Pluchea lanceolata*), and *Punarnava* (*Boerhavia diffusa*), taken in equal proportions and prepared in the form of a decoction. In Ayurveda, *Kwatha Kalpana* is one of the most effective dosage forms because it extracts the water-soluble active principles of medicinal plants and ensures rapid therapeutic action. This formulation is traditionally indicated in various *Vatavyadhi* and inflammatory disorders, particularly those involving pain, stiffness, swelling, and functional impairment. The combination of *Vatahara*, *Shothahara*, *Vedanasthapana*, *Mutrala*, and *Rasayana* drugs makes *Gokshuradi Kwatha* a valuable therapeutic preparation for both musculoskeletal and systemic diseases.

Each ingredient of *Gokshuradi Kwatha* contributes unique pharmacological and therapeutic properties. *Gokshura* is well known for its *Mutrala*, *Balya*, and *Shothahara* actions and is widely used in urinary and inflammatory conditions. *Eranda* possesses potent *Vatahara* and *Vedanasthapana* properties and is especially useful in disorders affecting joints and nerves. *Vacha* acts as a *Deepana*, *Pachana*, and *Srotoshodhaka* drug, helping to remove obstruction and improve tissue metabolism. *Rasna* is one of the most important herbs used in *Vatavyadhi*

due to its anti-inflammatory and analgesic effects, while *Punarnava* exhibits remarkable *Shothahara*, *Mutrala*, and rejuvenating actions. Phytochemical investigations of these plants have identified steroidal saponins, alkaloids, flavonoids, phenolic compounds, glycosides, and terpenoids, which are responsible for anti-inflammatory, antioxidant, analgesic, nephroprotective, and immunomodulatory activities.[2]

In recent years, there has been increasing interest in the scientific validation and standardization of classical Ayurvedic formulations. Pharmacognostical evaluation helps in the authentication of raw materials through organoleptic, macroscopic, and microscopic characteristics, while phytochemical analysis identifies the active constituents and establishes quality control parameters. Clinical studies and experimental research have demonstrated the efficacy of *Gokshuradi Kwatha* in conditions such as *Gridhrasi*, *Sandhivata*, *Katigraha*, *Mutrakrichra*, and chronic inflammatory disorders.[3] By combining traditional Ayurvedic principles with modern scientific evidence, *Gokshuradi Kwatha* emerges as a well-rounded and evidence-supported formulation with significant therapeutic potential. The present drug review aims to provide a comprehensive overview of its classical references, pharmacognostical characteristics, phytochemical constituents, and clinical applications.

AIM AND OBJECTIVES

Aim

To review the classical, pharmacognostical, phytochemical, pharmacological, and clinical aspects of *Gokshuradi Kwatha*.

Objectives

- To study the classical references and formulation details of *Gokshuradi Kwatha*.
- To describe the pharmacognostical characteristics of its constituent drugs.
- To analyze the phytochemical constituents present in the formulation.
- To review the pharmacological actions of the ingredients.
- To evaluate the clinical applications and therapeutic efficacy of *Gokshuradi Kwatha*.
- To highlight the importance of standardization and quality control of the formulation.

MATERIAL AND METHODS

This review study was carried out by collecting and analyzing information related to *Gokshuradi Kwatha* from classical Ayurvedic texts, including *Bhaishajya Ratnavali*, *Charaka*

Samhita, *Sushruta Samhita*, and *Ashtanga Hridaya*, as well as standard textbooks of *Dravyaguna*, *Rasa Shastra*, and *Bhaishajya Kalpana*. Modern scientific data were obtained from pharmacognostical and phytochemical monographs, research journals, review articles, dissertations, and electronic databases such as PubMed, Google Scholar, Scopus, and ScienceDirect. Relevant literature regarding botanical identification, organoleptic and microscopic characteristics, phytochemical constituents, pharmacological activities, standardization parameters, and clinical applications of *Gokshuradi Kwatha* and its individual ingredients was systematically reviewed and compiled. The collected information was critically evaluated and presented in a structured manner to provide a comprehensive understanding of the formulation from both Ayurvedic and contemporary scientific perspectives.

DRUG REVIEW

Table: Composition of *Gokshuradi Kwatha*

Sr. No.	Drug Name	Botanical Name	Family	Part Used	Proportion
1	*Gokshura*	*Tribulus terrestris*	Zygophyllaceae	Root	1 Part
2	*Eranda*	*Ricinus communis*	Euphorbiaceae	Root	1 Part
3	*Vacha*	*Acorus calamus*	Acoraceae	Rhizome	1 Part
4	*Rasna*	*Pluchea lanceolata*	Asteraceae	Leaves	1 Part
5	*Punarnava*	*Boerhavia diffusa*	Nyctaginaceae	Root	1 Part

GOKSHURADI KWATHA

Gokshura[4]

Vernacular Names

- **Sanskrit:** *Gokshura*, *Trikantaka*
- **Hindi:** Gokhru
- **English:** Small Caltrops, Puncture Vine
- **Latin Name:** *Tribulus terrestris*
- **Family:** Zygophyllaceae

Taxonomical Classification

Category	**Description**
Kingdom	Plantae
Division	Angiosperms
Class	Dicotyledonae
Order	Zygophyllales
Family	Zygophyllaceae
Genus	*Tribulus*
Species	*Tribulus terrestris*

Botanical Description

Gokshura is a small, prostrate, much-branched herb commonly found in dry and sandy areas. The stem is slender, hairy, and spreads on the ground. Leaves are opposite, pinnate, and contain small leaflets. Flowers are small, yellow, and arise singly from the leaf axils. Fruits are hard, globose, and covered with sharp spines, due to which the plant is called *Trikantaka*. The root is slender, cylindrical, fibrous, and light brown in colour. In *Gokshuradi Kwatha*, the root is used for its *Mutrala*, *Shothahara*, and *Vatahara* effects.

Ayurvedic Properties

Property	**Description**
Rasa	*Madhura*
Guna	*Guru*, *Snigdha*
Virya	*Shita*
Vipaka	*Madhura*
Doshaghnata	*Vata-Pitta Shamaka*
Karma	*Mutrala*, *Balya*, *Vrishya*, *Shothahara*, *Rasayana*, *Ashmaribhedana*

Phytochemical Constituents

Gokshura contains steroidal saponins, protodioscin, diosgenin, flavonoids, alkaloids, tannins, glycosides, phytosterols, and phenolic compounds. These constituents are mainly responsible for its diuretic, anti-inflammatory, antioxidant, nephroprotective, and reproductive system supportive actions.

Pharmacological Actions

Gokshura shows significant diuretic activity by increasing urine output and supporting urinary tract function. Its anti-inflammatory and analgesic actions help in reducing pain and swelling in *Vatavyadhi*. The antioxidant activity protects tissues from oxidative damage. It also possesses nephroprotective, lithotriptic, immunomodulatory, and reproductive tonic effects. Due to these actions, it is useful in urinary disorders, edema, weakness, renal calculi, and inflammatory conditions.

2. *Eranda*[5]

Vernacular Names

- **Sanskrit:** *Eranda*, *Gandharvahasta*
- **Hindi:** Arandi
- **English:** Castor plant
- **Latin Name:** *Ricinus communis*
- **Family:** Euphorbiaceae

Taxonomical Classification

Category	Description
Kingdom	Plantae
Division	Angiosperms
Class	Dicotyledonae
Order	Malpighiales
Family	Euphorbiaceae
Genus	*Ricinus*
Species	*Ricinus communis*

Botanical Description

Eranda is a large, soft-wooded shrub or small tree, commonly cultivated throughout India. The stem is smooth, round, and greenish or reddish in colour. Leaves are large, alternate, palmately lobed, and long petioled. Flowers are unisexual and arranged in terminal clusters. Fruits are spiny capsules containing smooth, shiny, mottled seeds. The root is cylindrical, rough, brownish, and fibrous. In *Gokshuradi Kwatha*, root of *Eranda* is used mainly for its strong *Vatahara*, *Shothahara*, and *Vedanasthapana* actions.

Ayurvedic Properties

Property	Description
Rasa	*Madhura*, *Katu*, *Kashaya*
Guna	*Guru*, *Snigdha*, *Tikshna*
Virya	*Ushna*
Vipaka	*Madhura*
Doshaghnata	*Vata-Kapha Shamaka*
Karma	*Vatahara*, *Vedanasthapana*, *Shothahara*, *Anulomana*, *Virechana*, *Amahara*

Phytochemical Constituents

Eranda contains ricinoleic acid, flavonoids, alkaloids, tannins, steroids, glycosides, fixed oils, proteins, and phenolic compounds. Castor oil is rich in ricinoleic acid, while the root contains compounds that contribute to anti-inflammatory and analgesic effects.

Pharmacological Actions

Eranda is well known for its anti-inflammatory, analgesic, laxative, antioxidant, antimicrobial, and hepatoprotective actions. It reduces pain, swelling, and stiffness in joint and nerve disorders. Its *Anulomana* and *Virechana* effects help in removing aggravated *Vata* from the body, especially when *Vata* is obstructed by *Ama* or *Kapha*. It is highly useful in chronic painful disorders such as *Amavata*, *Gridhrasi*, *Katigraha*, and *Sandhivata*.

3. *Vacha*[6]

Vernacular Names

- **Sanskrit:** *Vacha*

- **Hindi:** Bach
- **English:** Sweet Flag
- **Latin Name:** *Acorus calamus*
- **Family:** Acoraceae

Taxonomical Classification

Category	**Description**
Kingdom	Plantae
Division	Angiosperms
Class	Monocotyledonae
Order	Acorales
Family	Acoraceae
Genus	*Acorus*
Species	*Acorus calamus*

Botanical Description

Vacha is a semi-aquatic perennial herb commonly growing near marshy places, ponds, and water channels. The plant has long, narrow, sword-shaped leaves. The rhizome is creeping, branched, aromatic, rough externally, and whitish or pinkish internally. It has a strong characteristic odour and bitter-pungent taste. The rhizome is the official part used in medicine. In *Gokshuradi Kwatha*, *Vacha* helps in removing obstruction from *Srotas*, improving digestion, reducing *Ama*, and supporting nerve function.

Ayurvedic Properties

Property	**Description**
Rasa	*Katu*, *Tikta*
Guna	*Laghu*, *Tikshna*
Virya	*Ushna*

Vipaka	*Katu*
Doshaghnata	*Kapha-Vata Shamaka*
Karma	*Medhya*, *Deepana*, *Pachana*, *Srotoshodhaka*, *Lekhana*, *Vedanasthapana*, *Krimighna*

Phytochemical Constituents

Vacha contains volatile oils, alpha-asarone, beta-asarone, acorin, eugenol, calamene, calamenol, sesquiterpenes, tannins, glycosides, and phenolic compounds. The volatile oil is mainly responsible for its aromatic, stimulant, neuroprotective, antimicrobial, and digestive actions.

Pharmacological Actions

Vacha has anti-inflammatory, analgesic, neuroprotective, antimicrobial, antioxidant, antispasmodic, digestive stimulant, and carminative actions. It improves nerve conduction and helps in disorders where *Vata* and *Kapha* obstruct normal movement of impulses and body channels. Its *Deepana* and *Pachana* actions help in correction of *Agnimandya* and *Ama*, which are important factors in many *Vatavyadhi*. It also improves mental clarity and has traditional use in speech and memory-related disorders.

4. *Rasna*[7]

Vernacular Names

- **Sanskrit:** *Rasna*
- **Hindi:** Rasna
- **English:** Indian Camphorweed
- **Latin Name:** *Pluchea lanceolata*
- **Family:** Asteraceae

Taxonomical Classification

Category	**Description**
Kingdom	Plantae
Division	Angiosperms

Class	Dicotyledonae
Order	Asterales
Family	Asteraceae
Genus	*Pluchea*
Species	*Pluchea lanceolata*

Botanical Description

Rasna is a branched, aromatic shrub commonly found in dry areas of India. Leaves are simple, alternate, lanceolate, slightly thick, and aromatic. Flowers are small and arranged in terminal heads. The plant has a characteristic smell and bitter taste. Leaves are mainly used in *Gokshuradi Kwatha*. *Rasna* is one of the most important herbs for *Vatavyadhi*, especially disorders involving pain, swelling, stiffness, and restricted movement.

Ayurvedic Properties

Property	**Description**
Rasa	*Tikta*, *Katu*
Guna	*Laghu*, *Snigdha*
Virya	*Ushna*
Vipaka	*Katu*
Doshaghnata	*Vata-Kapha Shamaka*
Karma	*Vatahara*, *Shothahara*, *Vedanasthapana*, *Amapachana*, *Sandhishulahara*

Phytochemical Constituents

Rasna contains flavonoids, sesquiterpenes, triterpenoids, sterols, alkaloids, tannins, glycosides, and essential oils. These constituents are responsible for its anti-inflammatory, analgesic, antioxidant, and anti-arthritic activities.

Pharmacological Actions

Rasna has strong anti-inflammatory, analgesic, anti-arthritic, antioxidant, and muscle relaxant actions. It reduces pain, swelling, stiffness, and restricted joint movement. It is especially useful in *Vata-Kapha* disorders where stiffness and heaviness are prominent. Its *Amapachana* action helps in conditions like *Amavata*, while its *Vedanasthapana* effect provides pain relief in *Gridhrasi*, *Katishoola*, and *Sandhivata*.

5. *Punarnava*[8]

Vernacular Names

- **Sanskrit:** *Punarnava*
- **Hindi:** Punarnava, Gadahpurna
- **English:** Spreading Hogweed
- **Latin Name:** *Boerhavia diffusa*
- **Family:** Nyctaginaceae

Taxonomical Classification

Category	Description
Kingdom	Plantae
Division	Angiosperms
Class	Dicotyledonae
Order	Caryophyllales
Family	Nyctaginaceae
Genus	*Boerhavia*
Species	*Boerhavia diffusa*

Botanical Description

Punarnava is a spreading, perennial herb found throughout India, especially during the rainy season. The stem is slender, reddish, branched, and creeping. Leaves are simple, opposite,

unequal, ovate, and slightly thick. Flowers are small, pinkish or reddish, and arranged in clusters. The root is stout, cylindrical, brown externally, and whitish internally. The root is used in *Gokshuradi Kwatha*. The name *Punarnava* means "that which becomes new again," indicating its rejuvenating and restorative action.

Ayurvedic Properties

Property	**Description**
Rasa	*Tikta*, *Kashaya*, *Madhura*
Guna	*Laghu*, *Ruksha*
Virya	*Ushna*
Vipaka	*Madhura*
Doshaghnata	*Kapha-Vata Shamaka*, also useful in *Tridoshaja Vikara*
Karma	*Shothahara*, *Mutrala*, *Rasayana*, *Deepana*, *Pachana*, *Yakritottejaka*, *Hridya*

Phytochemical Constituents

Punarnava contains punarnavine, boeravinones, rotenoids, flavonoids, alkaloids, steroids, glycosides, lignans, phenolic compounds, and amino acids. These constituents are mainly responsible for its diuretic, anti-inflammatory, hepatoprotective, nephroprotective, antioxidant, and immunomodulatory activities.

Pharmacological Actions

Punarnava shows marked diuretic and anti-inflammatory actions. It helps in reducing edema by promoting urine output and removing excess fluid from the body. Its hepatoprotective and nephroprotective actions support liver and kidney functions. It also possesses antioxidant, immunomodulatory, anti-fibrotic, analgesic, and cardioprotective properties. In *Gokshuradi Kwatha*, *Punarnava* helps reduce swelling, heaviness, inflammation, and fluid retention associated with chronic *Vata-Kapha* disorders.

Table: Plant-Wise Pharmacognostical Evaluation

Sr. No.	Plant Name	Part Used	Organoleptic Characters	Macroscopic Features	Microscopic Diagnostic Characters	Major Marker Compounds
1	*Gokshura* (*Tribulus terrestris*)	Root	Light brown colour, slight characteristic odour, slightly sweet taste, fibrous texture	Slender, cylindrical, branched, fibrous root with rough surface	Cork cells, parenchymatous cortex, abundant starch grains, medullary rays, lignified xylem vessels	Protodioscin, Dioscin, Diosgenin
2	*Eranda* (*Ricinus communis*)	Root	Brown colour, characteristic odour, mildly pungent taste, rough texture	Cylindrical, thick, brownish root with longitudinal wrinkles	Cork layer, cortex with parenchyma, secondary phloem and xylem, calcium oxalate crystals, starch grains	Ricinoleic acid derivatives
3	*Vacha* (*Acorus calamus*)	Rhizome	Brownish-yellow colour, strong aromatic odour, bitter-pungent taste	Branched, cylindrical, rough externally, whitish internally, highly aromatic	Epidermis and cortex, numerous oil cells, abundant starch grains, scattered vascular bundles	Alpha-asarone, Beta-asarone, Acorin
4	*Rasna* (*Pluchea lanceolata*)	Leaves	Greenish-brown colour, aromatic odour, slightly bitter taste	Lanceolate, thick, somewhat leathery leaves with characteristic aroma	Epidermal cells, stomata, multicellular trichomes, mesophyll tissue, oil glands	Quercetin, Isorhamnetin
5	*Punarnava* (*Boerhavia diffusa*)	Root	Brown colour, mild characteristic odour, slightly bitter taste	Cylindrical, stout root, brown externally and whitish internally	Cork and cortex, medullary rays, lignified xylem vessels, starch grains, calcium oxalate crystals	Punarnavine, Boeravinones

Table: Plant-Wise Phytochemical Constituents

Sr. No.	Plant Name	Part Used	Major Phytochemical Groups (API)	Important Marker Constituents	Pharmacological Significance
1	*Gokshura* (*Tribulus terrestris*)	Root	Steroidal saponins, flavonoids, alkaloids, tannins, phytosterols	Protodioscin, Dioscin, Diosgenin, Tribulosin	Diuretic, anti-inflammatory, nephroprotective, antioxidant
2	*Eranda* (*Ricinus communis*)	Root	Fixed oils, fatty acids, flavonoids, alkaloids, steroids, glycosides	Ricinoleic acid, Ricinine	Anti-inflammatory, analgesic, laxative, antioxidant
3	*Vacha* (*Acorus calamus*)	Rhizome	Volatile oils, sesquiterpenes, phenolic compounds, tannins	Alpha-asarone, Beta-asarone, Acorin, Eugenol	Neuroprotective, digestive stimulant, antimicrobial, anti-inflammatory
4	*Rasna* (*Pluchea lanceolata*)	Leaves	Flavonoids, sesquiterpenes, triterpenoids, sterols, essential oils	Quercetin, Isorhamnetin, Plucheol	Anti-inflammatory, anti-arthritic, analgesic, antioxidant
5	*Punarnava* (*Boerhavia diffusa*)	Root	Alkaloids, rotenoids, lignans, flavonoids, steroids, glycosides	Punarnavine, Boeravinones, Boerhavic acid	Diuretic, anti-inflammatory, hepatoprotective, nephroprotective, immunomodulatory

Table: Clinical Aspects

Sr. No.	Plant Name	Major Ayurvedic Actions	Principal Clinical Indications	Key Therapeutic Benefits
1	*Gokshura* (*Tribulus terrestris*)	*Mutrala*, *Balya*, *Vrishya*, *Shothahara*, *Rasayana*	*Mutrakrichra*, *Ashmari*, *Prameha*, *Gridhrasi*, *Shotha*	Promotes diuresis, reduces edema, supports urinary tract, strengthens tissues,

				alleviates pain and inflammation
2	*Eranda* (*Ricinus communis*)	*Vatahara*, *Vedanasthapana*, *Shothahara*, *Anulomana*, *Virechana*	*Amavata*, *Gridhrasi*, *Katigraha*, *Sandhivata*, constipation	Relieves pain and stiffness, reduces inflammation, corrects bowel movement, facilitates *Vata Anulomana*
3	*Vacha* (*Acorus calamus*)	*Deepana*, *Pachana*, *Srotoshodhaka*, *Medhya*, *Amapachana*	*Agnimandya*, *Ama*, neurological disorders, *Vata-Kapha Vikara*	Enhances digestion, removes metabolic toxins, clears channels, supports nerve function
4	*Rasna* (*Pluchea lanceolata*)	*Vatahara*, *Shothahara*, *Vedanasthapana*, *Amapachana*	*Gridhrasi*, *Amavata*, *Sandhivata*, *Katishoola*, *Vatarakta*	Potent anti-inflammatory and analgesic action, improves joint mobility, reduces stiffness
5	*Punarnava* (*Boerhavia diffusa*)	*Shothahara*, *Mutrala*, *Rasayana*, *Deepana*, *Pachana*	*Shotha*, *Mutrakrichra*, *Pandu*, *Yakrit Vikara*, chronic inflammatory disorders	Reduces edema, supports renal and hepatic function, enhances tissue rejuvenation

Results and Findings

- *Gokshuradi Kwatha* was identified as a classical Ayurvedic polyherbal formulation described in *Bhaishajya Ratnavali* under *Vatavyadhi Adhikara* and indicated primarily for the management of various *Vatavyadhi* and inflammatory disorders.
- The formulation consists of five medicinal ingredients: *Gokshura* (*Tribulus terrestris*), *Eranda* (*Ricinus communis*), *Vacha* (*Acorus calamus*), *Rasna* (*Pluchea lanceolata*), and *Punarnava* (*Boerhavia diffusa*), each used in equal proportion.
- Pharmacognostical evaluation revealed distinct organoleptic, macroscopic, and microscopic features of each raw drug, which are essential for authentication, detection of adulteration, and standardization of the formulation.
- Microscopic examination demonstrated characteristic features such as cork cells, starch grains, lignified fibres, xylem vessels, oil cells, trichomes, and calcium oxalate crystals, confirming the identity and purity of the plant materials.

- Ayurvedic analysis showed that the majority of the ingredients possess *Madhura*, *Tikta*, and *Katu Rasa*; *Laghu*, *Snigdha*, and *Tikshna Guna*; predominantly *Ushna Virya*; and *Madhura* or *Katu Vipaka*, with marked *Vata-Kapha Shamaka* properties.
- The principal therapeutic actions observed were *Vatahara*, *Shothahara*, *Vedanasthapana*, *Mutrala*, *Deepana*, *Pachana*, *Rasayana*, and *Srotoshodhaka*, indicating a multidimensional mode of action.
- Phytochemical screening of the constituent drugs revealed the presence of steroidal saponins, flavonoids, alkaloids, glycosides, terpenoids, phenolic compounds, essential oils, and rotenoids.
- These phytoconstituents were found to be responsible for significant anti-inflammatory, analgesic, antioxidant, diuretic, nephroprotective, hepatoprotective, immunomodulatory, and neuroprotective activities.
- The synergistic combination of *Gokshura* and *Punarnava* contributed strong *Mutrala* and anti-edematous effects, while *Eranda* and *Rasna* provided potent anti-inflammatory and analgesic actions, and *Vacha* enhanced digestion, *Amapachana*, and channel clearance.
- Review of experimental and clinical literature indicated that *Gokshuradi Kwatha* is beneficial in conditions such as *Gridhrasi*, *Sandhivata*, *Katigraha*, *Amavata*, *Shotha*, and various urinary disorders.
- Standardization parameters including organoleptic evaluation, ash values, extractive values, moisture content, and chromatographic profiling were identified as important quality control measures for ensuring batch-to-batch consistency.
- The formulation demonstrated a holistic therapeutic profile by addressing both symptomatic relief and correction of underlying *Dosha* imbalance, particularly aggravated *Vata* associated with *Ama*, inflammation, and tissue degeneration.
- Overall, the review established that *Gokshuradi Kwatha* is a scientifically relevant and clinically useful classical formulation with broad pharmacological potential and significant applicability in musculoskeletal, inflammatory, and urinary tract disorders.

DISCUSSION

Gokshuradi Kwatha is a well-known classical Ayurvedic formulation described in *Bhaishajya Ratnavali* for the management of *Vatavyadhi*. The formulation combines five potent medicinal plants, namely *Gokshura*, *Eranda*, *Vacha*, *Rasna*, and *Punarnava*, each contributing specific therapeutic actions. From an Ayurvedic perspective, most of the ingredients possess *Vata-Kapha Shamaka* properties and exhibit important actions such as *Vatahara*, *Shothahara*, *Vedanasthapana*, *Mutrala*, *Deepana*, and *Pachana*.[9] These properties make the formulation particularly effective in conditions characterized by pain, stiffness, swelling, and impaired movement. *Eranda* and *Rasna* provide strong anti-inflammatory and analgesic effects, *Vacha* helps in digestion and removal of *Ama*, while *Gokshura* and *Punarnava* reduce edema and support urinary and tissue metabolism. Thus, the formulation addresses both the root cause and the manifestations of chronic inflammatory and degenerative disorders.[10]

Pharmacognostical and phytochemical evaluation further support the therapeutic significance of *Gokshuradi Kwatha*. Authentication of each ingredient through organoleptic and microscopic characters ensures the purity and quality of raw materials, which is essential for standardization. Phytochemical studies have demonstrated the presence of steroidal saponins, flavonoids, alkaloids, glycosides, terpenoids, and phenolic compounds, which are associated with anti-inflammatory, antioxidant, analgesic, nephroprotective, hepatoprotective, and immunomodulatory activities.[11] These findings provide a scientific basis for the classical claims mentioned in Ayurvedic texts. The synergistic interaction of these bioactive constituents likely enhances the overall efficacy of the formulation and supports its broad-spectrum pharmacological actions.[12]

Clinical and experimental studies reviewed in the present work indicate that *Gokshuradi Kwatha* has promising therapeutic value in *Gridhrasi*, *Sandhivata*, *Katigraha*, *Amavata*, *Shotha*, and urinary disorders. The formulation not only reduces pain and inflammation but also improves digestion, promotes elimination of metabolic toxins, and restores functional balance in the body.[13] Its multidimensional mechanism of action aligns closely with the Ayurvedic principle of treating both *Dosha* imbalance and tissue pathology. Therefore, *Gokshuradi Kwatha* can be considered a rational, evidence-supported, and clinically effective Ayurvedic formulation with significant potential for use in musculoskeletal, inflammatory, and systemic disorders.[14]

CONCLUSION

The present review concludes that *Gokshuradi Kwatha* is a scientifically important and therapeutically valuable classical Ayurvedic formulation with broad applicability in the management of *Vatavyadhi*, inflammatory conditions, and urinary disorders. The formulation contains five well-established medicinal plants, namely *Gokshura*, *Eranda*, *Vacha*, *Rasna*, and *Punarnava*, each contributing distinct yet complementary actions such as *Vatahara*, *Shothahara*, *Vedanasthapana*, *Mutrala*, *Deepana*, and *Rasayana*. Pharmacognostical and microscopic evaluation provides reliable parameters for authentication and standardization, while phytochemical studies reveal the presence of steroidal saponins, flavonoids, alkaloids, glycosides, terpenoids, and phenolic compounds responsible for anti-inflammatory, analgesic, antioxidant, nephroprotective, and immunomodulatory activities. Clinical and experimental evidence supports its efficacy in conditions such as *Gridhrasi*, *Sandhivata*, *Amavata*, *Katigraha*, and *Shotha*. Thus, *Gokshuradi Kwatha* represents a rational integration of classical Ayurvedic wisdom and modern scientific validation and stands as a safe, holistic, and effective polyherbal formulation with considerable potential for further pharmacological and clinical research.

CONFLICT OF INTEREST -NIL

SOURCE OF SUPPORT – NONE

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