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Review

Gambhari (*Gmelina arborea* Roxb. Ex Sm.): A comprehensive analytical review of its therapeutic formulations from selected texts of Ayurveda

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ABSTRACT:

Background: *Gambhari* (*Gmelina arborea* Roxb.) is a renowned medicinal plant used in Ayurveda. It is a fast-growing species that has proven antioxidant, immunomodulatory, anti-inflammatory, analgesic activities. **Objective:** The objective of this review was to conduct a comprehensive analysis of the therapeutic formulations of *Gambhari* mentioned in selected textbooks of Ayurveda focusing on the major *srotas* of their action, route of administration, dosage form used for the therapeutic delivery, part used, synonym used and whether the mode of administration was internal or external or both. **Materials and Methods:** This is a analytical review. The data compilation was made by a thorough analysis of 21 selected books of Ayurveda. Formulations containing any part of *Gambhari* whether utilized as a standalone ingredient or as constituents of *Dasamula* or *Brhat Panchamoola* were identified and documented in a specially designed data extraction sheet. NAMASTE (National AYUSH Morbidity and Standardized Terminologies Electronic) portal was referred for the English equivalents of Ayurvedic technical terms. **Results:** The analysis revealed that *Gambhari* was used as an ingredient in a total of 1125 formulations from 21 classical texts which were used for either internal or external administration or both. Among these 273 formulations were repeated. After removal of repetitions a total of 852 formulations acting on different diseases were obtained. The primary systemic affinities were visualized using Sunburst charts, illustrating the top five *Srotas/ Srotas* combinations targeted by these formulations. **Conclusion:** The current review highlights *Gambhari* (*G.arborea*) as a versatile therapeutic agent having a profound multi-target pharmacological profile. The review has demonstrated the primary affinity of the formulations containing *Gambhari* in *Annavaha-Rasavaha* and *Pranavaha srotas* highlighting its critical role in maintaining digestive metabolic and respiratory health.

KEYWORDS: *Dashamula, Gambhari, Gmelina arborea* Roxb. Ex Sm., *Kashmarya, Raktapitta*

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1. INTRODUCTION

A group of various medical and healthcare interventions existing in various parts of the world which are not generally considered as part of conventional medicine (called as the Western or allopathic or modern medicine) comes under the umbrella term, 'Complementary and Alternative medicine'(CAM). In India, it includes traditional systems of medicine like Ayurveda, Siddha, Unani. Ayurveda is considered as one of the most ancient medical sciences in the world having a history of almost 5000 years. [1] It uses animals, minerals and marine drugs in single as well as combination for treating various ailments. [2] Herbals have been documented as one of the most powerful healing ingredients in Ayurveda, in its classical treatises. It includes both single drugs and poly-herbals in different combinations for treating ailments. [3]

Gambhari (Gmelina arborea Roxb.) (Lamiaceae) is a well-known medicinal plant in Ayurveda. The roots, leaves, flowers, fruits and bark are used for treating ailments. [4] It is widely distributed in seasonally dry tropical biome. It is a fast-growing species found in the evergreen and dry deciduous forests. In the natural forests, the species is usually found scattered and in association with many other species. It grows up to a height of 35m having a diameter of 3m. Under natural conditions, the tree produces multiple stems with a broad canopy. The tree has smooth whitish gray to yellow-gray bark. [5] The heartwood of *G. arborea* contains chemical constituents like *gmelanone,* [6] *arboreo*l, [7] leaves contain flavonoids like luteolin which exhibits cytotoxic and antioxidant activities, [8] sterols like sitosterol. [9] The plant exhibits potential pharmacological activities like analgesic, anti-inflammatory, [10] anticonvulsant, antioxidant activities, [11] antidiabetic, [12] immuno-modulatory effect, [13] anti-diarrheal activity, [14] vasodilating effects to mention a few. [15]

The plant has been widely described in books of Ayurveda especially as part of *Dasamula* and *Madhura triphala*. Charaka samhitha has hailed the fruit of *Gambhari* as *Raktasangrahika Raktapittaprashamana* (haemostatics). [16] References regarding medicinal properties of *Gambhari* are widely distributed in the classical books of Ayurveda. It is highlighted as *Rasayani* (rejuvenative), [17] *Tridoṣhashamani* (pacifies vitiated *Vata, Pitta, Kapha*). [17,18] The fruits are said to be *Rasayana* (rejuvenative) by Madanapala Nighantu. [19] It is said to cure diseases like *Sotha* (oedema), *Arsha* (haemmorhoids) *Krumi* (worm infestations), *Daha* (burning sensation), *Jvara* (fever) to list a few. [20, 21]

There are various works focusing on varied aspects of *G. arborea* like its pharmacological, phytochemical aspects, but a comprehensive review focusing on the therapeutic formulations containing *Gambhari* mentioned in various textbooks of Ayurveda has not been done till yet. Hence, this review focusses on the different therapeutic formulations of *Gambhari* as mentioned in various selected *Chikitsagranthas* of Ayurveda, focusing on the major *srotas* of their action, route of administration, dosage form used for the therapeutic delivery, part used, synonym used and if the mode of administration is internal or external or both. This provides an exhaustive review on the topic which helps to comprehensively analyze the therapeutic profile of formulations containing *Gambhari*.

2. MATERIALS AND METHODS

This is a analytical review.

The methodology of the current review has been depicted below:

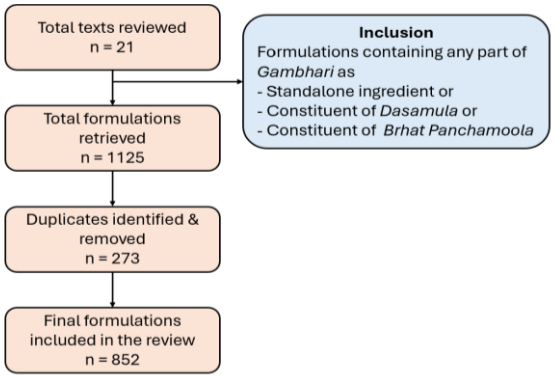


Figure 1: Flowchart of the methodology used in the current review.

The classical and regional textbooks used in the current review are represented in table below (Table 1).

Table 1: Books referred for the current review

Sl.No	Name of the book	Author/Editor	Language
1	*Ashtangahrdaya* [22]	Vagbhata	Sanskrit
2	*Ashtanga Sangraha [*23]	Vridha Vagbhata	Sanskrit
3	*Chakradutta* [24]	Chakrapanidutta	Sanskrit
4	*Charaka samhitha* [25]	Agnivesha	Sanskrit
5	*Chikitsamanjari [*26]	D. Sriman Namboothiri	Malayalam
6	*Gadanigraha (Kayachikitsa khanda)* [27]	Sri Indradeva Tripathi	Sanskrit
7	*Gadanigraha (Prayoga khanda)* [28]	Sri Indradeva Tripathi	Sanskrit
8	*Gadanigraha (Shalakyadi - Panchakarmadikaranto bhaga)* [29]	Sri Indradeva Tripathi	Sanskrit
9	*Kashyapa samhitha* [30]	Kashyapa	Sanskrit
10	*Rajamarthanda* [31]	Prof. Siddhi Nandana Mishra	Hindi
11	*Sahasrayogam* [32]	KV Krishnan Vaidyan and S. Gopala Pillari (Editors)	Malayalam
12	*Sarvarogachikitsanool* [33]	John Alexander	Malayalam
13	*Sharangadhara samhitha* [34]	Dr Brahmananda Tripathi	Sanskrit
14	*Sidhayoga sangraha* [35]	Vaidya Yadavji Trikamji Acharya	Hindi
15	*Sukhasadhakam* [36]	Vaikkath Pachumuth	Malayalam
16	*Susrutasamhitha* [37]	Susruta	Sanskrit
17	*Vaidyarahasya* [38]	Dattarama Chaturvedi	Malayalam
18	*Vaidyamanorama enna chikitsakramam* [39]	Cheppad Achyuta Varier	Malayalam
19	*Vaidyatarakam* [40]	Vaidyakalanidhi CN Narayanan	Malayalam
20	*Vrindamadhava* [41]	Premvati Tiwari (Editor)	Sanskrit
21	*Yogamrutam* [42]	D. Sriman Nambuthiri	Malayalam

Inclusion criteria: Formulations containing any part of Gambhari whether utilized as a standalone ingredient or as constituents of Dasamula or Brhat Panchamoola from selected textbooks is included in the current review. The major synonyms *Kasmari, Kasmarya, Katphala, Madhuparni, Palamkasha, Rohini, Sriparni, Srivruksha* were used for identification of formulations. The English equivalents of Ayurvedic technical terms, disease conditions and dosage forms were referred and recorded from National AYUSH Morbidity and Standardized Terminologies Electronic Portal (NAMASTE). [43]

Exclusion criteria: Repetition of same formulations containing same useful part and indications mentioned in different selected books were excluded from the review.

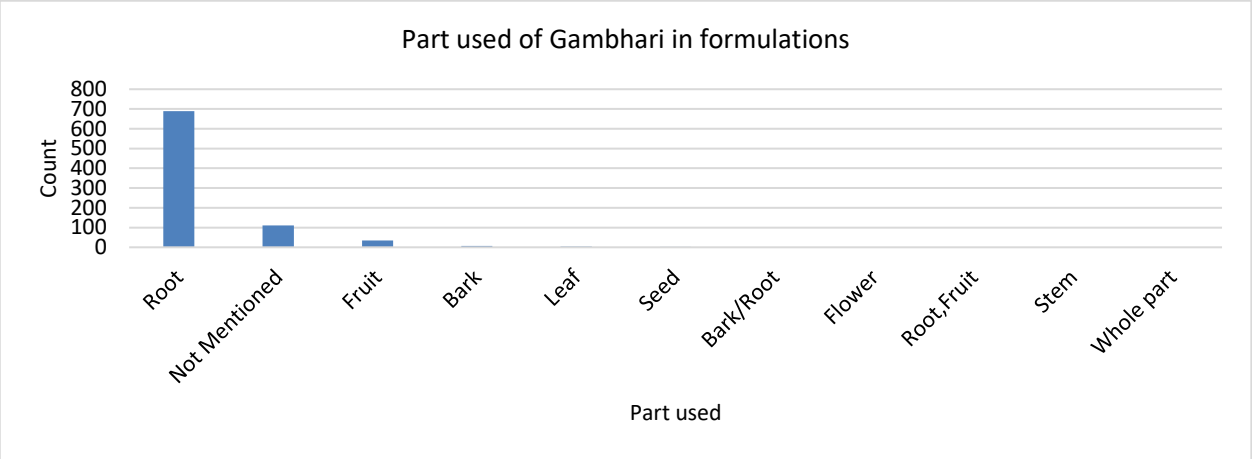
3. RESULTS

The analysis revealed that *Gambhari* was used as an ingredient in a total of 1125 formulations from 21 classical texts which were used for either internal or external administration or both. Among these 273 formulations were repeated. After removal of repetitions a total of 852 formulations acting on different diseases were obtained (Supplementary file :1). The primary systemic affinities were visualized using Sunburst charts, illustrating the top five *Srotas/ Srotas* combinations targeted by these formulations.

Synonyms of *Gambhari* used in formulations: The analysis of synonyms in the source tests identified *Kasmarya* (n=110) as the most frequently utilized synonym for *Gambhari* (n=4) within the recorded formulations. This was followed by other synonyms like *Kasmari* (n=52), *Sriparni* (n-15), *Katphala* (n=4), *Rohini* (n=2), *Madhuparṇi* (n=2), *Srivruksha* (n=1) and *Palamkasha* (n=1). This reflected the diverse classical terminologies employed across the reviewed literature.

Route of administration of *Gambhari:* Analysis of route of administration revealed a marked predominance of the systemic use of *Gambhari* accounting for 634 formulations followed by external administration accounting for 158 formulations, while 49 formulations were indicated for both internal and external applications.

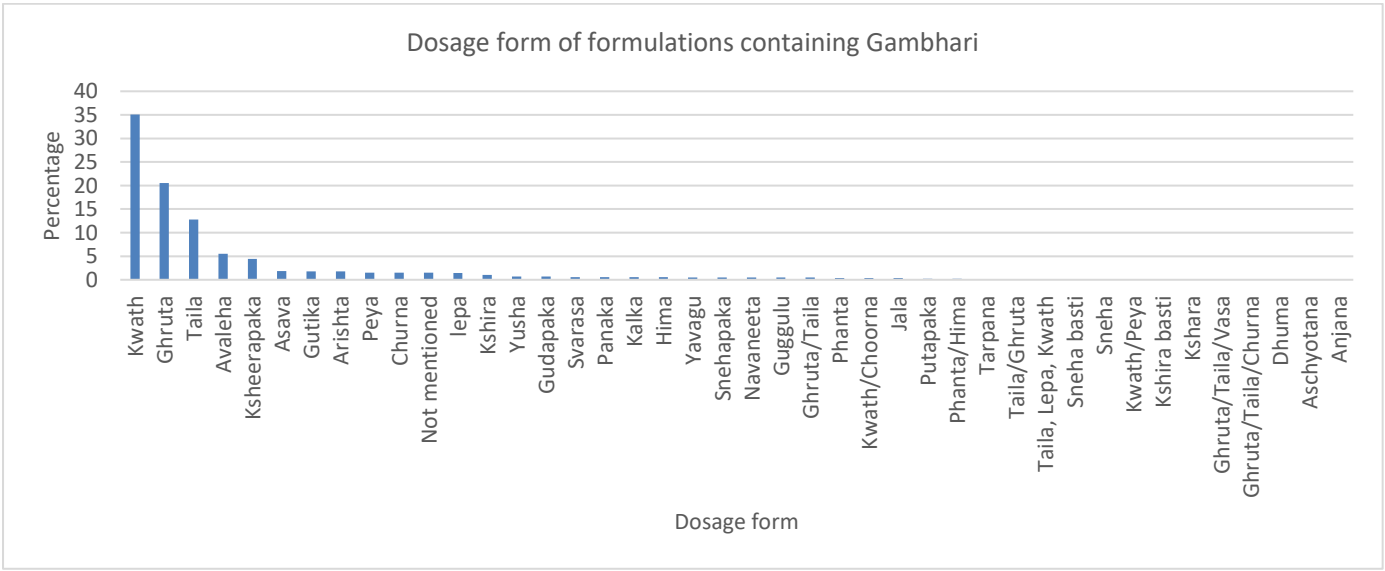
Part of Gambhari used in formulations: Among the 852 formulations, Root was the most commonly used part (n=689) followed by fruit(n=34), bark(n=7), leaf(n=4), seed(n=2), bark/root, flower, root and fruit, stem and whole part(n=1). The part used in 111 formulations were not mentioned. (Graph 1)



Graph 1: Part of *Gambhari* used in various formulations analysed

Dosage form of formulations containing *Gambhari*

The current data set revealed a diverse range of dosage forms of *Gambhari* based formulations. *Kvatha* (n=299, 35.1%) emerged as the primary pharmaceutical medium followed by *Ghrta* (n=175, 20.5%) ranking second. Other notable preparations included *Taila* (n=109, 12.8%), *Avaleha* (n=47, 5.5%), *Kshirapaka* (n=38, 4.5%) and fermented formulations like *Asava* (n=16, 1.9%) *Arishta* (n=15,1.8%), *Gutika* (n=15, 1.8%) . Other minor dosage forms included *Peya* (n=13, 1.5%), *Churna* (n=13, 1.5%), *Lepa* (n=12,1.4%), *Kshira* (n=9, 1%), *Yusha* (n=6, 0.7%), *Gudapaka* (n=6, 0.7%), *Svarasa* (n=5, 0.6%), *Panaka* (n=5, 0.6%), *Kalka* (n=5, 0.6%), *Hima* (n=5, 0.6%), *Yavagu* (n=4, 0.5%), *Navaneeta* (n=4, 0.5%), *Guggulu* (n=4, 0.5%), *Ghrta/Taila* (n=4, 0.5%), *Phanta* (n=3, 0.3%), *Kwatha/Churna* (n=3, 0.3%), *Jala* (n=3, 0.3%) were also observed in the dataset. (Graph 2)



Graph 2: Dosage form of formulations containing *Gambhari* (*G.arborea*)

Karma* of formulations containing *Gambhari: The formulations having *Karma* as its major indication were grouped. This revealed that *Vatahara* accounted for the primary *Karma* followed by others like *Dipana, Rasayana, Vishaghna, Balakrut, Virechaka, Vatakapharogahara, Kapharogahara, Vedanahara, Vatapittahara, Raktasravahara, Anulomana, Vrushya, Vranaropana, Vamana-Virechana Atiyogahara, Valipalita Ayu Bala Vardhana, Tridoshahara, Swedaka, Svarya, Svara Varna Bala Ayu Vardhaka, Stanyashodhana, Sarvavatarogahara, Sannipata Rogahara, Samsargarogahara, Raktapushtikara, Pachana, Medhya, Kaphahara, Daurgandhyahara, Bruhmana, Balya* and *Balamamsakrt*.

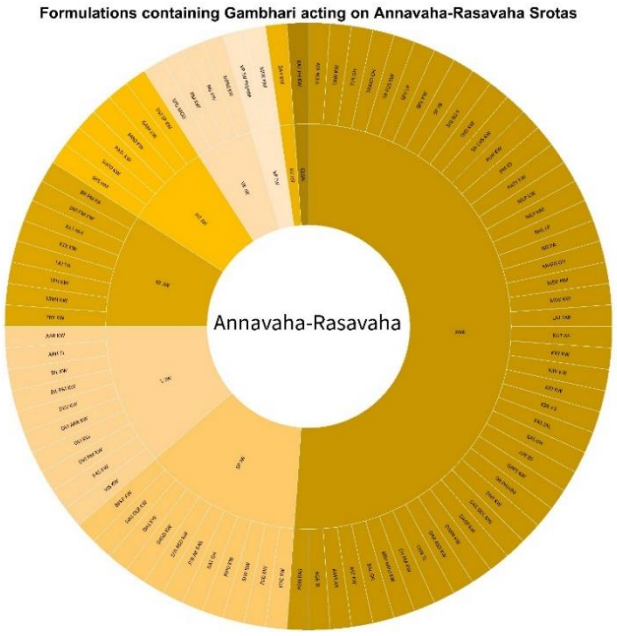
Ekala prayoga* (Single drug usage) of *Gambhari: The dataset revealed 11 formulations highlighting the single drug usage of *Gambhari*. It included *Gambhari ksheerapaka* made using root and fruit, *Kashmari swarasa* (n=2, indicated in *mada murcha* and *pittaja jwara*) and *Kashmari phala yusha* mentioned in Ashtangahrdaya, *Gambhari kwath(*n=2*, indicated in Pittaja jwara* and for *vamana* in *pittaja hrdroga) in Vrindhamadhava*, *Gambhari taila in Gadanigraha*, *Kashmari kalpa*, *Kashmariphala ksheerapaka* and *Kashmari pana mentioned in Susruta Samhitha*.

Srotas* wise action of formulations containing *Gambhari

The therapeutic profile of *Gambhari* was analyzed across various *srotas* and disease conditions. Graphical representations illustrating its action on the major five *Srotas* combinations and associated disease conditions have been represented below. The data of various dosage forms indicated in specific disease conditions under respective *Srotas* has also been presented in tabular form.

Annavaha-Rasavaha Srotas

A primary therapeutic affinity for the *Annavaha-Rasavaha Srotas* was identified with 88 formulations containing *Gambhari* acting on the *Srotas* (Graph 1). Among the indicated diseases, *Jvara* was the most prevalent followed by various sub types of *Jvara* like *Sannipata-jvara, Vata-jvara, Pitta-jvara, Kapha-jvara, Vatakapha-jvara, Kaphapitta-jvara. Kvatha* (n=22) was the most commonly used dosage form followed by *Ghrta* (n=5) and *Taila* (n=2) (Table 2) (Graph 3).



Graph 3: Formulations containing *Gambhari* acting on *Annavaha-Rasavaha Srotas*

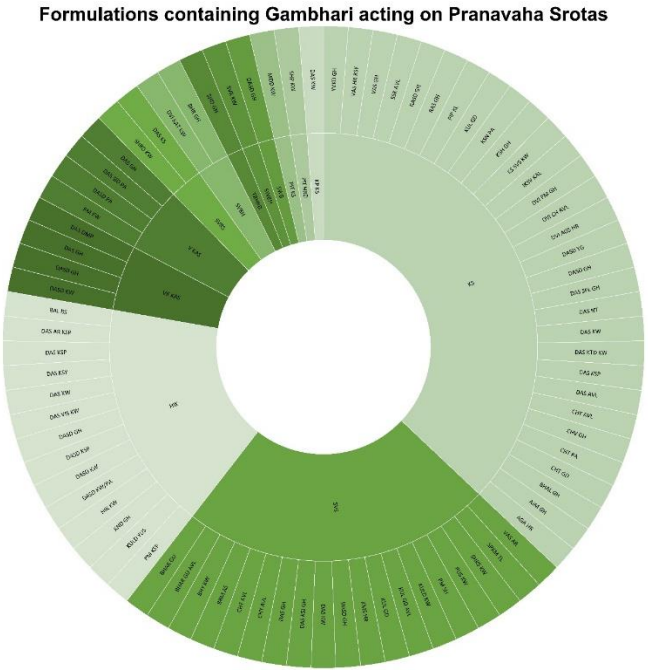
Table 2: Dosage forms of *Gambhari* containing formulations acting on *Annavaha-Rasavaha Srotas*

Sl. No	Disease	Dosage form	Count of Dosage form
1	*Jvara*	*Kvatha*	22
		Ghrta	5
		Taila	2
		Lepa	2
		Hima	2
		Arishta	2
		Tarpaṇa	1
		Taila, Lepa, Kvatha	1
		Snehabasti	1
		Phanta/Hima	1
		Phanta	1
		Peya	1
		Kshirapaka	1
		Jala	1
		Gutika	1
		Asava	1
2	*Sannipata-jvara*	*Kvatha*	9
		Gutika	1
		Ghrta	1

3	*Vata-jvara*	*Kvatha*	9
		Taila	1
4	*Pitta-jvara*	*Kvatha*	5
		Hima	1
5	*Kapha-jvara*	*Kvatha*	3
		Peya	2
6	*Vatakapha-jvara*	*Kvatha*	4
		Gutika	1
7	*Kaphapitta Jvara*	*Kvatha*	2
		Hima	1
8	*Kaphapitta-jvara*	*Phanta/Hima*	1
		Hima	1
9	*Galaganda*	*Kvatha*	1

Pranavaha srotas

There was a total of 81 formulations acting on different disease states affecting the *Pranavaha srotas*. These formulations were indicated in diseases like *Kasa*, *Svasa Hikka*, subtypes of *Kasa* like *Vataja Kasa, Pittaja Kasa, Kaphaja Kasa,* among others. Among these, *Kasa* emerged as the predominant clinical indication, most frequently managed by *Ghrta* (n=12) followed by *Avaleha* (n=9) and *Kvatha* (n=3) (Table 3) (Graph 4).



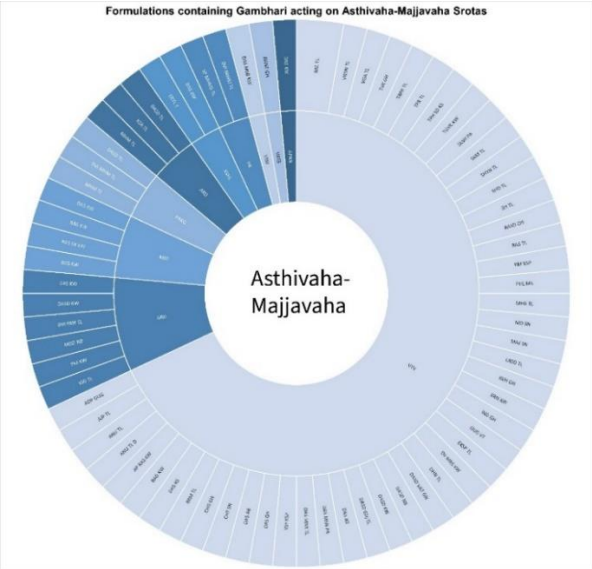
Graph 4: Formulations containing *Gambhari* acting on *Pranavaha srotas*

Table 3: Dosage forms of *Gambhari* containing formulations acting on *Pranavaha srotas*

Sl. No	Disease	Dosage form	Count of Dosage form
1	*Kasa*	*Ghrta*	12
		Avaleha	9
		Kvatha	3
		Peya	2
		Yavagu	1
		Navanita	1
		Kshirapaka	1
		Gudapaka	1
2	*Svasa*	*Kvatha*	5
		Avaleha	5
		Ghrta	3
		Gudapaka	2
		Arishta	2
		Taila	1
		Asava	1
3	*Hikka*	*Kvatha*	4
		Kshirapaka	4
		Ghrta	2
		Yusha	1
		Yavagu	1
		Taila	1
		Kvatha/Peya	1
4	*Vatakaphaja Kasa*	*Ghrta*	2
		Kvatha	1
		Dhuma	1
5	*Vataja Kasa*	*Peya*	2
		Kvatha	1
		Ghrta	1
6	*Svarabheda*	*Kvatha*	2
		Ghrta	1
7	*Svarasada*	*Kvatha*	1
		Kṣira	1
8	*Tridoshaja hrdroga*	*Ghrta*	1
9	*Svarabhanga*	*Ghrta*	1
10	*Pittaja kasa*	*Kvatha*	1
11	*Pittaja hrdroga*	*Kvatha*	1
12	*Kaphaja kasa*	*Kvatha*	1

Asthivaha majjavaha srotas

A total of 72 formulations were identified acting on various diseases *Asthivaha Majjavaha srotas. Vatavyadhi* in general was the most prevalent indication of formulations followed by specific disease conditions under *Vatavyadhi* including *Grdhrasi, Manyastambha, Pakshagata* among others. *Taila* (n=21) was the most common dosage form indicated in *Vatavyadhi* followed by *Ghrta* (n=8) and *Kvatha* (n=7) (Table 4) (Graph 5).



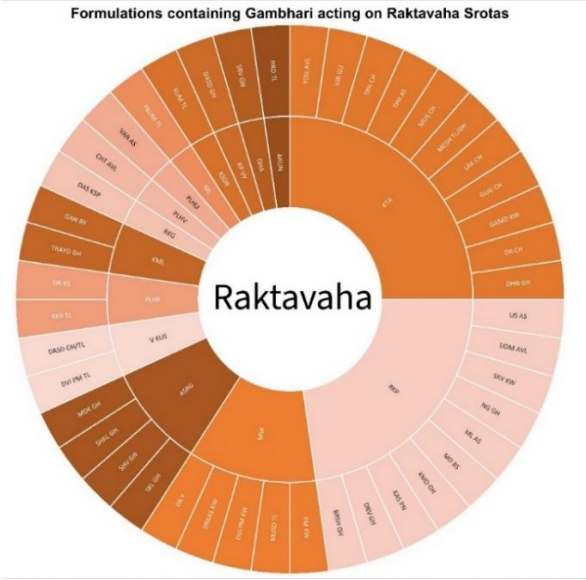
Graph 5: Formulations containing *Gambhari* acting on *Asthivaha Majjavaha Srotas*

Table 4: Dosage forms of *Gambhari* containing formulations acting on *Asthivaha Majjavaha Srotas*

Sl. No	Disease	Dosage form	Count of Dosage form
1	*Vatavyadhi*	*Taila*	21
		Ghrta	8
		Kvatha	7
		Kshirapaka	3
		Snehapaka	2
		Kṣira	2
		Sneha	1
		Peya	1
		Navanita	1
		Gutika	1
		Guggulu	1
2	*Gṛdhrasi*	*Kvatha*	4
		Taila	2
3	*Manyastambha*	*Kvatha*	4
4	*Pakshagata*	*Taila*	3
5	*Ardita*	*Taila*	3
6	*Kaṭisula*	*Kvatha*	2
7	*Hastakampa*	*Taila*	2
8	*Visvachi*	*Kvatha*	1
9	*Vatasanga*	*Ghrta*	1
10	*Apatantraka*	*Kvatha*	1

Raktavaha srotas

Diseases affecting *Raktavaha srotas* emerged as the next predominant group where formulations containing *Gambhari* were indicated. *Kushta* was the most prevalent disease condition in *Raktavaha Srotas* followed by others like *Raktapitta, Masurika, Asrgdhara Plihodara, Kamala, Raktagulma. Churna* (n=5) was the most common dosage form used in *Kushta* followed by *Taila/Ghrta* (n=1) and *Kvatha* (n=1) (Table 5) (Graph 6).



Graph 6: Formulations containing *Gambhari* acting on *Raktavaha srotas*

Table 5: Dosage forms of *Gambhari* containing formulations acting on *Raktavaha srotas*

Sl. No	Disease	Dosage form	Count of Dosage form
1	*Kushta*	*Churna*	5
		Taila/Ghrta	1
		Kvatha	1
		Gutika	1
		Ghrta	1

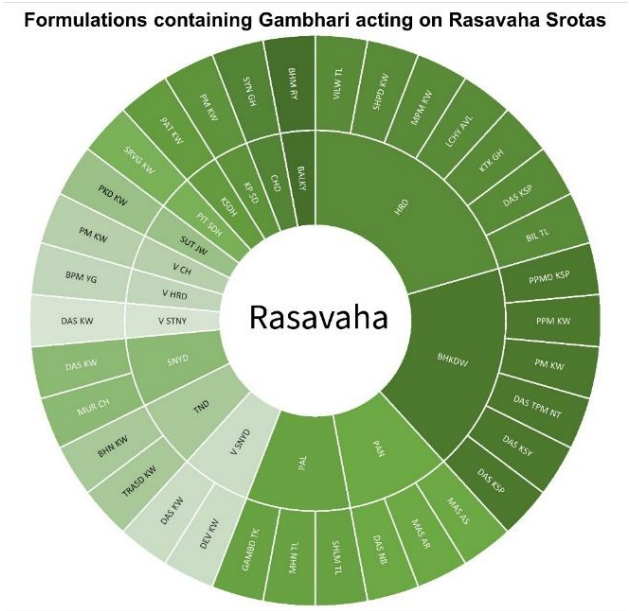
		Avaleha	1
		Asava	1
2	*Raktapitta*	*Ghrta*	4
		Kvatha	2
		Asava	2
		Panaka	1
		Avaleha	1
3	*Masurika*	*Kvatha*	3
		Taila	1
		Kvatha/Churna	1
4	*Asrgdhara*	*Ghrta*	4
5	*Vataja Kushta*	*Taila*	1
		Ghrta/Taila	1
6	*Pliharoga*	*Taila*	1
		Ksira	1
7	*Kamala*	*Ghrta*	1
		Avaleha	1
8	*Raktagulma*	*Kshirapaka*	1
9	*Plihodara*	*Asava*	1
10	*Plihavrddhi*	*Avaleha*	1
11	*Nilika*	*Taila*	1
12	*Kshudraroga*	*Taila*	1
13	*Kaphajanya Vyanga*	*Ghrta*	1
14	*Daha*	*Kvatha*	1
15	*Arumshika*	*Taila*	1

Rasavaha srotas

A total of 34 formulations were identified acting on various disease conditions affecting *Rasavaha srotas*. *Hrdroga* was the most prevalent disease state followed by *Bhaktadvesa, Vataja Stanyadushti Pandu, Palitya* among others. *Taila* was the most common dosage form used in *Hrdroga* (n=2) followed by *Kvatha* (n=2) and *Ksirapaka* (n=1) (Table 6) (Graph 7).

Table 6: Dosage forms of *Gambhari* containing formulations acting on *Rasavaha srotas*

Sl.No	Disease	Dosage form	Count of dosage forms
1	*Hrdroga*	*Taila*	2
		Kvatha	2
		Kshirapaka	1
		Ghrta	1
		Avaleha	1
2	*Bhaktadvesa*	*Kvatha*	2
		Kshirapaka	2
		Yavagu	1
		Navanita	1
3	*Vataja Stanyadushti*	*Kvatha*	3
4	*Pandu*	*Kvatha*	1
		Asava	1
		Arishta	1
5	*Palitya*	*Taila*	3
6	*Tandra*	*Kvatha*	2
7	*Stanyadosha*	*Kvatha*	1
		Churna	1
8	*Vataja Hrdroga*	*Yavagu*	1
9	*Vataja Chardi*	*Kvatha*	1
10	*Sutika Jvara*	*Kvatha*	1
11	*Pittaja stanyadustihara*	*Kvatha*	1
12	*Kshiradoshahara*	*Kvatha*	1
13	*Kaphaja Stanyadosha*	*Kvatha*	1
14	*Chardi*	*Ghrta*	1
15	*Balakhalitya*	*Avaleha*	1



Graph 7: Formulations containing *Gambhari* acting on *Rasavaha srotas*

4. DISCUSSION

The present review evaluates the pharmacotherapeutic landscape of *Gambhari* (*G.arborea*) focusing on various aspects of therapeutic formulations. The analysis of synonyms of a drug and acquaintance with names, characters and knowledge is essential for the identification of plants. The synonyms represent generational wisdom with deeper meanings revealed by proper analysis and understanding of the same. [44] The current study utilized selected Ayurvedic books in Sanskrit, Hindi and Malayalam language for extracting the data of formulations containing *Gambhari*. The search was conducted using the synonyms of *Gambhari* for identifying the formulations. It was observed that *Kashmarya* was the most common synonym; indicative of its habitat. [45] This was followed by various other synonyms indicative of its characters like *Shriparni* (having beautiful leaves) *Katphala* (having fruits like Katphala).[46] As this study utilized Malayalam and Hindi books, it was observed that the Sanskrit synonyms were most commonly used in regional textbooks too.

According to Ayurveda, the human body is made of an intricate network of innumerable channels or *Srotas* which facilitate the transport of nutrients and metabolic products essential for nourishment of *Dhatus* (tissues). Charaka samhitha reiterates that the integrity of *Srotas* is fundamental to maintain health and the vitiation of these can lead to disease states. [47] The analysis of target *Srotas* of action of formulations is a key factor for delivering therapeutic precision. The current data analysis revealed that the formulations containing *Gambhari* had a primary affinity towards *Annavaha Rasavaha Srotas* (n=88) followed by *Pranavaha Srotas* (n=81) and *Asthivaha-Majjavaha Srotas* (n=72). This systemic targeting is further validated by the observed routes of administration of where internal administration (n=634) significantly dominates external administration (n=158). The versatility of these formulations can be assessed through the fact that a niche of formulations (n=49) can be used for both internal and external administrations. The preference for the oral route is further reflected by the distribution of pharmaceutical dosage forms. The predominance of *Kvatha* (n=299) as the most common dosage form is indicative of the preference for rapid systemic absorption of the dosage form owing to its water-soluble components which increases bioavailability. [48] Another crucial factor contributed by these findings is the frequent inclusion of *Gambhari* within the *Dasamula* group, which appeared in 535 of the unique formulations analysed. Clasically, *Dasamula* is indicated for the management of *Svasa, Kasa, Jwara.* This further corroborates the primary concentration of activities within the *Annavaha-Rasavaha* and *Pranavaha srotas*. The analysis of the part used with respect to the srotas has further confirmed these findings. The root demonstrated maximum utility within the *Annavaha-rasavaha srotas*(n=74) followed by *Pranavaha srotas*(n=72). This suggests that while *Gambhari* possess individual therapeutic benefits, its clinical utility is significantly amplified through its synergistic role in classical polyherbal groups, ensuring multisystemic efficacy. Current research shows that formulations containing *Dasamula* has been effectively indicated in conditions like bronchial asthma validating the classical literature. [49-50] Furthermore, the anti-allergic activity of *G.arborea* has been validated in in-vivo experimental models. [51] Fruit is found to be most commonly used part after root exhibiting its therapeutic actions primarily within the *Annavaha srotas* followed by others like *Annavaha, Purishavaha* and *Udakavaha srotas.*

The formulations where the primary indication is a *Karma* has been grouped separately; the analysis of this spectrum was characterized by a definitive *Vatahara* influence which was the primary *Karma* identified in the analyzed dataset (n=32). This predominant action provides a rationale for the high frequency of lipid-based dosage forms like *Ghrta* and *Taila* in the dataset. The *vatahara* action may be correlated with the neuroregenrative potential and actions in neurological conditions of *Dasamula*. [52] The therapeutic versatility of the formulations containing *Gambhari* is further evidenced by its broad spectrum of clinical

indications. Apart from its primary actions the dataset identifies significant applications in *Rasayana, Vishaghna* and *Dipana Karmas*. The anti-photoageing and immunomodulatory potential of *Gambhari* has been validated by research. [53, 54] Its inclusion in formulations for *Balakrut, Virechaka, Vedanahara* purposes underscores its multi-target pharmacological profile.

5. CONCLUSION

The current review highlights *Gambhari* (*G.arborea*) as a versatile therapeutic agent having a profound multi-target pharmacological profile. The review has demonstrated the primary affinity of the formulations containing *Gambhari* in *Annavaha-Rasavaha* and *Pranavaha Srotas* highlighting its critical role in maintaining digestive metabolic and respiratory health. The predominance of internal administration routes and *Kvatha* as dosage forms underscore a clinical preference for water-soluble components ensuring enhanced bioavailability. Its inclusion in *Dasamula* group in majority of formulations highlights its critical synergistic role for managing ailments. Thus, Gambhari emerges not only as a solitary herb but as a critical synergistic component in various formulations offering better therapeutic outcomes.

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REFERENCES:

1. Pandey L, Pasricha R, Joseph D, Ahuja R, Yanthan Y, Garg PK, et al. Use of complementary and alternative medicine among patients with cancer in a sub-Himalayan state in India: An exploratory study. Journal of Ayurveda and Integrative Medicine. 2021 Jan;12(1):126–30. Available from: https://doi.org/10.1016/j.jaim.2021.01.001.
2. Shi Y, Zhang C, Li X. Traditional medicine in India. Journal of Traditional Chinese Medical Sciences. 2021 Nov 1;8: S51–5. Available from: https://doi.org/10.1016/j.jtcms.2020.06.007.
3. Parasuraman S, Thing G, Dhanaraj S. Polyherbal formulation: Concept of ayurveda. Pharmacognosy Reviews. 2014; 8(16):73. Available from: https://doi.org/10.4103/0973-7847.134229.
4. Kulkarni Y, Panjabi R, Patel V, Tawade A, Gokhale A. Effect of Gmelina arborea Roxb in experimentally induced inflammation and nociception. Journal of Ayurveda and Integrative Medicine. 2013;4(3):152. Available from: . 10.4103/0975-9476.118697.
5. Warrier RR, Priya SM, Kalaiselvi R. Gmelina arborea– an indigenous timber species of India with high medicinal value: A review on its pharmacology, pharmacognosy and phytochemistry. Journal of Ethnopharmacology. 2021 Mar; 267:113593. Available from: https://doi.org/10.1016/j.jep.2020.113593.
6. Anjaneyulu ASR, Rao KJ, Rao VK, Row LR, Subrahmanyam C, Pelter A, et al. The structures of lignans from Gmelina arborea Linn. Tetrahedron. 1975 Jan;31(10):1277–85. Available from: https://doi.org/10.1016/0040-4020(75)80169-4.
7. Satyanarayana P, Rao PK, Ward RS, Pelter A. Arborone and 7-Oxo-dihydrogmelinol: Two New Keto-Lignans from Gmelina arborea. Journal of Natural Products. 1986 Nov 1;49(6):1061–4. Available from: https://doi.org/10.1021/np50048a014.
8. Ghareeb MA, Ghareeb MA, Shoeb HA, Madkour HMF, Refahy LA, Mohamed MA, et al. Antioxidant and Cytotoxic Activities of Flavonoidal Compounds from Gmelina arborea Roxb. Global Journal of Pharmacology. 2014;8(1):87–97. Available from:. https://idosi.org/gjp/8(1)14/15.pdf.
9. Nair AGR, Subramanian SS. Quercetagetin and other flavones from Gmelina arborea and G. asiatica. Phytochemistry. 1975 Apr;

14(4):1135–6. Available from: https://doi.org/10.1016/0031-9422(75)85211-3.

10. Kulkarni YA, Panjabi R, Patel V, Tawade A, Gokhale A. Effect of Gmelina arborea Roxb in experimentally induced inflammation and nociception. Journal of Ayurveda and Integrative Medicine. 2013 Jul; 4(3):152–7. Available from: https://pmc.ncbi.nlm.nih.gov/articles/PMC3821189/pdf/JAIM-4-152.pdf.
11. Acharya NS, Acharya SR, Kumar V, Barai P. Anticonvulsant and Antioxidant Effects of Methanol Extract of Stems of G. arborea Roxb. Journal of Natural Remedies. 2015 Jan 28;15(1):23. Available from: https://doi.org/10.18311/jnr/2015/469
12. Niyati A, Barai P, Acharya SR, Article O, Acharya N, Katariya H, et al. Evaluation of antidiabetic potential of roots and stems of G. Arborea. Article in International Journal of Pharmacy and Pharmaceutical Sciences [Internet]. 2015; 7(8). Available from: https://journals.innovareacademics.in/index.php/ijpps/article/view/5299/pdf_1048.
13. Shukla S, Saluja A, Pandya S. Modulating effect of Gmelina arborea Linn. on immunosuppressed albino rats. Pharmacognosy Research. 2010;2(6):359. Available from: https://doi.org/10.4103/0974-8490.75455.
14. Ajah O, Omodamiro OD, Jimoh MA, Ewa-ibe C. Evaluation of antidiarrhea and antimicrobial activities of methanol extract leaves of Gmelina arborea. Journal of Medicinal Botany. 2020 Jul 18;20–3. Available from: . https://pdfs.semanticscholar.org/1d10/931efe45a84378c118500f021d858cfe550d.pdf.
15. Wansi SL, Nyadjeu P, Ngueleface TB, Fodouop SFK, Donatien AA, Kamanyi A. In vivo Antioxidant and Vasodilating Activities of Gmelina arborea (Verberaceae) Leaves Hexane Extract. J Complement Integr Med. 2012 Oct 5;9(1). Available from: https://doi.org/10.1515/1553-3840.1623.
16. Yadavji Trikamji (editor). Charaka samhitha of Charaka, Sutrasthana, chapter 25, verse no.40. Reprinted edition, Varanasi; Chaukhamba Subharati Prakashan;2009;131.
17. Visalakshy P (editor). Madananadi Nighantu, Tritiya gana, verse no.5-6.1st edition, Thiruvananthapuram; SB Press(P) Limited; 2005;35.
18. Kamat S.D. Studies on Medicinal Plants and Drugs in Dhanwantari Nighantu; 1st edition, Chaukhambha Subharati Prakashan; Varanasi; 2002;42.
19. Ramprasad(editor). Commentary: Bhashatatvaprakashini on Madanapala Nighantu of Madanapala, verse no.50-52, 1st edition, Varanasi; Khemraj Shrikrishnadas publications;2008;20
20. Ministry of Health and Family welfare. The Ayurvedic pharmacopoeia of India. Vol 1. Part 1. Reprint edition, Delhi; The Controller of Publications; 2001; 48. Available from: https://www.ayurveda.hu/api/API-Vol-1.pdf
21. Pandey GS (editor). Bhavaprakasha Nighantu of Bhavamishra,Guduchyadi varga, verse no.24-26, Reprint edition, Varanasi; Chaukhambha Bharati Academy;2022;265.
22. Paradakar HS (editor). Ashtangahrdaya of Vaghbhata,9th edition, Varanasi; Chaukhamba Orientalia;2005;557,561,563,573,586,589,592,593,599,601,602,606,612,615,617,619,654,665,676,684,685,688,689,698,706,722,731,735,738,740,742,747,772,782,789,808,818,835,841,847,849,852,854,856,857,864,866,905,932,973,991,1004,1018,1019,1039,1042,1058,1063,1074,1088,1098,1149,1160,1161,1185,1187.
23. Shivaprasad Sharma (editor). Ashtanga Sangraha of Vriddha Vaghbhata, 3rd edition, Varanasi; Chaukhamba Krishnadas academy;2022;53,81, 82,121,132,291,295,298,425-431,435,447-449,452,463,467,476,484,488,495,496,500-506,509,516,521,527-530,538,542,543,546,548, 549,564,565,568,570-575,583,584-589,594-604,608,633,637,638,641,648,653,663-664,682,683,699,709,720-724,733,737,744,759,761,766,779-782,808,822,835-836,867,894,897,898, 902,911-912,922,934,936.
24. Sadananda Sharma(editor, Chakradutta of Chakrapanidutta, 3rd edition, New Delhi; Meherchand LakshmandasPublications;2000;3,8,9,13,33,40,50,64,80,85,99,105,115,117,119- 121,124,125,127,133,135,144,151,153,156,158,160,165,166,168,169,184, 186, 192, 211,214,218,219,223,227,244,247,255,271,273,274,308,313,314,327,332,340,350,354,356,378,379,382,390,400,469.
25. Yadavji Trikamji, (editor. Charaka samhitha of Charaka, 1st edition, Varanasi;Chaukhamba orientalia; 2021; 4-14,18 20,28,32-44,47-55,61- 68,76-78,81-83,85,96-98,102,105,112,114, 116,121-124,129,137,139-140,160,163,197,205,234,243,267,269.
26. Namboothiri D.S. Chikitsamanjari, 14th edition, Alappuzha; Vidyarambhom publishers; 2019; 57,64,75,82,120,124,128,133,139,156,202,261,269,271,273,308,314,398,429,436,525,727.
27. Indradeva Tripathi (editor)., Gadanigraha, Vol.2, 1st edition, Varanasi; Chowkhamba Sanskrit SeriesOffice;1969;11,65,68,71,75,76,82,88,90,98,104,106,107,110,114,116,152,198,223,297,319,320,325,327,373,382,400,420,422,497,502,507,508,511,518,548,549,621,671,685,701,716,728,729,731,741,815,831,833,862.
28. Indradeva Tripathi (editor). Gadanigraha, Vol. 1, 1st edition, Varanasi; Chowkhamba Sanskrit SeriesOffice;1968;6,12,18,21,30,32,44,52-54,56,59,66,69,71,76,79,81,85,88,110,112,128,139, 140,167,234,244,253,256,260,295,307-309,314-316,323,326,329,330,337,346,354,362,363, 365,371,377,379,380,386,389,390,395,397.

29. Indradeva Tripathi (editor). Gadanigraha, Vol. 3, 1st edition, Varanasi; Chowkhamba Sanskrit Series Office; 1969; 15,29,52,54,58,260,292,295,472,501,505,517,518,583,748.
30. Hemraj Sharma, Satyapala Bhishagacharya (editors).Kashyapa Samhitha, Reprint edition, Varanasi;Chaukhambasanskritsansthan;2013;7,98,105,110,128,138,157,165,168,169,180,182,192,221,223,253,295,298,299,311-313,315,326, 327,334,342-344,349,351.
31. Mishra SN(translator). Rajamarthanda. 1st edition, Varanasi; Chaukhamba orientalia; 2009;57.
32. Krishnan KV, Pillai SG (editors). Sahasrayogam. 29th edition, Alappuzha; Vidyarambham publishers;2010;3,5,7,11-14,22,24,30,32,38,42,44,50,55,68,72,74,88,90,104,158,159,162,172, 192,196,199,202,210,247,268,284,285,293,317.
33. Alexander J. Sarvaroga chikitsanool. 8th edition, Vidyarambhom publishers; Alappuzha; 2016; 4,5,10,17,21,29,35,42,75,246,248,250,260- 262,267-268,272,277-278,282,289,322.
34. Brahmanand Tripathi(editor). Sarangadhara samhitha , Varanasi; Chaukamba subharati Prakashan;2017; 152,163,164,166,201-202,212-213,225-226,230-231,329,482.
35. Yadavji Trikamji (editor) . Sidhayoga sangraha, New Delhi;Kithab Mahal Publications; 2020; 16,63,78,103,133,145.
36. PachumuthV.Sukhasadhakam;SahithiBooks;Thrissur;2025;6,11,17,32, 33,38,53,54,66,74,76,82, 111.
37. Yadavji Trikamji (editor).Susruta Samhitha of Susruta, Reprint edition, Varanasi; Chaukhamba Sanskrit sansthan;2009; 7-9,12-14,33,34,36,26-28,32,36,44-47,52-56,61-63,64-67,143-144,173-175,184-187.
38. Chaturvedi D(editor). Vaidyarahasya. 2nd edition, Mumbai; Venkateshwar Printing Press; 1951; 133,146,148,254,362,371.
39. Varier CA. Vaidyamanorama enna chikitsakramam; 3rd edition,Unnimooss Foundation; Kottayam;2020;2-4,7,9,13-15,17,21,23,26,27,28-30,32-33,35,37,38,40,41,43-44,48,50,53,57, 64,73,74,76,83,84,101,102,103,135,137.
40. Vaidyan CNN. Vaidyatarakam; Sahithya Pravarthaka Co-operative society Ltd; Kottayam; 2023; 7,17-20,26-34,36-52,55,68-71,75,79,95,127,111-121,147-150.
41. Tiwari P (editor and Translator), Vrindamadhava, 1st edition, Varanasi;Chaukhamba Bharti Academy;2007;23,25,31,36-42,47,61,75,95-96,112,128,147,158,160,164,172,184, 188,190,205, 214,218,222,225,227-228,234,237-240,243-244,249,251-258,262,265,269-271,274,276,291, 312,331,344-348,385,394-401,412,426,429,433,494,504,522,526,557,565,568,570,578,610, 622,627,635,647,706.
42. Namboothiri DS. Yogamrutam; 7th edition, Vidyarambham Publishers; Alappuzha;2021; 12, 13, 35,38.
43. NAMASTE Portal: Ministry of Ayush, India [Internet]. [cited 2026 May 11]. Available from: https://namaste.ayush.gov.in/.
44. Garbe LA, Baez K, Tiwari VJ, Schultz F. The significance of Sanskrit names of medicinal plants used in Ayurveda. Medicinal Plant Biology. Maximum Academic Press; 2024. Available from: https://doi.org/10.48130/mpb-0024-0024.
45. GS Pandey(editor). Commentary:KC Chunekar on Bhavaprakasha nighantu of Bhavamishra,Guduchyadi varga,verse no.14,Delhi;Chaukhamba Vishwabharati;2022;265.
46. Prakash L Hegde, Harini A. A Textbook pf Dravyaguna Vijnana; Reprint edition, Chaukambha Sanskrit Sansthan; Varanasi; 2017;292.
47. Yadavji Trikamji(editor). Charaka samhitha of Charaka, Vimanasthana, chapter 5, verse no.2. Reprint edition,Varanasi;Chaukhamba Subharati Prakshan;2009;174.
48. Bhatt N, Deshpande M, Chaskar S. A Critical Review of Standardization of Ayurvedic Dosage Form Kwatha - Part - II: Approaches and Outcome. International Journal of Ayurvedic Medicine. 2020 Oct 2;11(3):378–86. Available from: https://doi.org/10.47552/IJAM.V11I3.1552.
49. Aradhya V, Kottursheti IB. Therapeutic Management of Bronchial Asthma through Vamana and Dashamoola Haritaki Avaleha: A Case Study. International Journal of AYUSH Case Reports. 2025 Jun 18;9(2):310–9. Available from: https://doi.org/10.70805/ija-care.v9i2.704
50. HR V, Sowmya SB, Venkatram Reddy Vajrala. Comprehensive effect of Shodhana followed by Rasayana in Pranavaha Sroto Vikara - A Case Study. Journal of Ayurveda and Integrated Medical Sciences. 2025 May 16;10(3):353–6. Available from: https://doi.org/10.21760/jaims.10.3.53.
51. Chothani DL, NM Patel P. Anti-allergic Potential of Methanolic Extracts of Leaves and Fruit of Gmelina arborea Roxb. Pharmacognosy Communications. 2020 Dec 2;10(4):156–60. Available from: https://doi.org/10.5530/pc.2020.4.33
52. Jahan, Ishrata; Chaudhary, Ankita; Sharma, Aloka *et al*. Recent Updates and Exploring Neuroregeneration Propensity of Dashamoola: An Ancient Ayurvedic Formulation. World Journal of Traditional Chinese Medicine 11(4):453-473, Oct–Dec 2025. Available from: https://doi.org/10.4103/wjtcm.wjtcm_20_25
53. R G Raghi, Jollykutty Eapen. Anti photoageing potential of fruits of Draksha (Vitis vinifera L.) and Kaashmari (Gmelina arborea Roxb.). Journal of Traditional and Folk Practices. 2020 Dec 1;8(2).Available from: https://doi.org/10.25173/jtfp.2020.8.2.114.
54. Shukla SH, Saluja AK, Pandya SS. Modulating effect of Gmelina arborea Linn. on immunosuppressed albino rats. Pharmacognosy Research. 2010;2(6):359-363. Available from: https://doi.org/10.4103/0974-8490.75455.