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FROM TOXICITY TO THERAPEUTICS: A REVIEW OF *UPAVISHA DRAVYAS* IN AYURVEDA

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ABSTRACT

Upavisha Dravyas are semi-poisonous substances described in Ayurveda that possess both toxic and therapeutic properties. Although these drugs have been widely employed in Ayurvedic pharmaceutics after appropriate *Shodhana* (purification), information regarding their classification, purification procedures, therapeutic applications, and regulatory status remains dispersed across classical texts and contemporary scientific literature. This fragmented knowledge makes it difficult to understand their rational therapeutic use and highlights the need for a comprehensive review. The present review was undertaken to critically compile and analyse the available classical and contemporary evidence on *Upavisha Dravyas,* with emphasis on their classification, *Shodhana* procedures, therapeutic applications, and regulatory considerations. The review was conducted using information gathered from classical Ayurvedic texts, including *Charaka Samhita, Sushruta Samhita, Rasaratna Samuccaya, Rasa Tarangini, Ayurveda Prakasha, Bhava Prakasha, Sarangadhara Samhita* and other authoritative *Rasashastra* literature, along with published research articles, standard reference books, and official publications related to Ayurvedic toxicology and regulatory guidelines. The review revealed considerable variation among classical texts regarding the number and classification of *Upavisha Dravyas*, reflecting the gradual evolution of Ayurvedic knowledge. Classical literature describes drug-specific *Shodhana* procedures employing media such as *Gomutra, Godugdha, Kanjika, Ghrita*, and herbal decoctions to reduce toxicity and enhance therapeutic efficacy. Following proper purification and administration in prescribed doses, *Upavisha Dravyas* are incorporated into numerous classical formulations for the management of neurological, musculoskeletal, respiratory, dermatological, and gastrointestinal disorders. The review also identified that several *Upavisha* drugs are included under Schedule E1 of the Drugs and Cosmetics Act, emphasizing the importance of quality control, dose regulation, and standardized pharmaceutical practices. Overall, the available literature supports the therapeutic significance of *Upavisha Dravyas* while highlighting the need for scientific validation of classical purification methods, pharmacological and toxicological evaluation, and clinical studies to ensure their safe and evidence-based use. Integrating traditional Ayurvedic knowledge with modern scientific research may further strengthen their role in contemporary healthcare.

Keywords: *Upavisha Dravyas, Shodhana, Rasashastra*, Ayurvedic Toxicology, Schedule E1 Drugs.

INTRODUCTION: In Ayurveda, *Visha* (poison) denotes substances capable of producing harmful effects on both the body and mind. These agents are known for their rapid action and ability to spread throughout the body, thereby disturbing normal physiological processes. The term originates from the Sanskrit root "*Viś*," meaning "to pervade," reflecting its swift and penetrating nature [1] Classical

Ayurvedic literature further explains that substances causing distress or discomfort are termed *Visha* (*Viṣāda jananatvāt viṣam*). Numerous synonyms such as *Halahala*, *Garala*, and *Kalkuta* are described in ancient texts, each illustrating different aspects of toxicity [2,3]

Based on the intensity of their action, poisonous substances are broadly classified into *Mahavisha* (highly poisonous substances) and *Upavisha* drugs, though comparatively less toxic, still possess significant biological activity and can produce adverse effects if not used properly [4]. Despite their toxic nature, these substances have been therapeutically utilized due to their potent pharmacological properties when processed appropriately. The discipline of *Rasashastra* plays a crucial role in the medicinal application of such substances. [5] It involves the use of metals, minerals, and toxic herbal drugs after appropriate pharmaceutical processing. In this context, *Upavisha Dravyas* (semi-poisonous substances with comparatively lower toxicity) undergo *Shodhana* (purification), which helps reduce their toxicity and enhance their therapeutic efficacy. As a result, these drugs can be safely administered in small doses and provide significant clinical benefits. [6,7]

Although classical texts provide scattered information regarding the therapeutic uses of *Upavisha Dravyas*, a systematic compilation of this knowledge remains limited. [4] In contemporary practice, concerns related to toxicity, dosage standardization, and manufacturing practices have gained attention. Furthermore, there is an increasing need to validate classical knowledge through modern scientific approaches [8]

References to *Visha* and its management are available from the Vedic period onwards. Ayurveda addresses toxicology through the specialized branch of *Agadatantra* (*Vishatantra*), (Ayurvedic toxicology) which recognizes the therapeutic potential of toxic substances after proper processing. This review critically analyzes the classical concepts, classification, *Shodhana* procedures, therapeutic applications, and regulatory aspects of *Upavisha Dravyas* in Ayurvedic literature

AIM

To comprehensively review the classical and contemporary literature on *Upavisha Dravyas* in Ayurveda, with emphasis on their therapeutic significance, purification (*Shodhana*) procedures, classification, and regulatory aspects.

OBJECTIVES

1.To compile the classical descriptions and classification of *Upavisha Dravyas* from authoritative Ayurvedic texts.

2.To review the various *Shodhana* (purification) procedures described for important *Upavisha* drugs.

3.To summarize the therapeutic applications and important Ayurvedic formulations containing *Upavisha Dravyas*.

4.To discuss the regulatory status of *Upavisha* drugs under Schedule E1 of the Drugs and Cosmetics Act.

5.To highlight the need for scientific validation, standardization, and safe clinical use of *Upavisha Dravyas.*

MATERIALS AND METHODS.

The present review was carried out through a comprehensive literature review

of classical Ayurvedic texts, including *Charaka Samhita*, *Sushruta Samhita*, *Rasa Ratna Samuccaya*, *Rasa Tarangini*, *Ayurveda Prakasha*, *Rasendra Chudamani*, *Rasa Ratnakara*, *Bhava Prakasha*, and *Sarangadhara Samhita*. Relevant information was also collected from published research articles in peer-reviewed journals, standard reference books on *Rasashastra* and *Agadatantra*, and official publications related to Ayurvedic toxicology and drug regulation. The retrieved information was critically analyzed and compiled to summarize the classification, *Shodhana* procedures, therapeutic applications, and regulatory aspects of *Upavisha Dravyas*.

RESULTS

The concept of *Upavisha* has been discussed across multiple classical Ayurvedic texts, although the number and identity of these drugs vary among authors. Early references to the categorization of toxic substances can be traced to foundational texts such as *Rasarnava*, where an initial attempt was made to differentiate *Visha* and *Upavisha*. Subsequent works including Rasa Ratnakara and Rasendra Chudamani further elaborated on this classification. Classical compendia such as *Rasa Ratna Samuchaya* describe a limited number of toxic substances under the *Visha* category, while later texts expanded the scope of *Upavisha* by including additional drugs based on their therapeutic relevance and frequency of use. For instance, texts like *Rasendra Chintamani* and *Sarangadhara Samhita* enumerate a greater number of such substances, indicating an evolving understanding of semi-poisonous drugs. [9]

Further elaboration is observed in texts such as *Ayurveda Prakasha* and *Bhava Prakasha*, where the number of *Upavisha* drugs is expanded, reflecting their increasing recognition in therapeutic formulations. Similarly, *Rasa Tarangini* provides a more comprehensive account, including additional drugs under this category, suggesting a gradual enrichment of knowledge over time. [10]

Interestingly, variations in classification across texts highlight differences in interpretation among scholars. Some authors have restricted the *Visha* category to highly potent substances and grouped the rest under *Upavisha*, while others have expanded both categories based on clinical utility and observed effects. The progressive inclusion of *Upavisha* drugs in later *Rasashastra* literature reflects the evolving recognition of their therapeutic value following appropriate *Shodhana* and pharmaceutical processing.

Overall, the literary review suggests a dynamic evolution in the understanding of *Upavisha*. With time, more substances were identified, classified, and incorporated into therapeutic practice, emphasizing their importance in Ayurveda. However, the diversity in opinions and lack of uniformity underline the need for systematic compilation and critical analysis of these drugs in the context of modern research.

Classification of *Upavisha*

Classical Ayurvedic texts classify poisons into two major categories: *Mahavisha* (highly potent poisons) and *Upavisha* (semi-poisonous substances with comparatively lower toxicity). While *Mahavisha* can produce severe and rapidly fatal effects, *Upavisha* drugs exhibit

milder toxicity and generally cause less severe manifestations. [11]

Based on origin, *Visha* is further classified into *Akritrima Visha* and *Kritrima (Gara) Visha*. *Akritrima Visha* (artificial poison) includes *Sthavara Visha* (plant and mineral origin) and *Jangama Visha* (animal origin), whereas *Kritrima Visha* comprises artificially prepared poisons. Most *Upavisha* drugs are categorized under *Sthavara Visha* as they are primarily plant-derived substances with inherent toxic properties. Following appropriate *Shodhana* procedures, these drugs are therapeutically utilized for their specific pharmacological actions. A comparative list of *Upavisha* drugs described in *Rasa Tarangini* and *Rasa Ratna Samuccaya* is presented in Table 1.

Table 1. List of *Upavisha* Drugs Described in *Rasa Tarangini* and *Rasa Ratna Samuccaya*

Drug	**Botanical Name**	***Rasa Tarangini***	***Rasa Ratna Samuccaya***
Vishatinduka (*Vishamushti*)	*Strychnos nux-vomica* Linn.	✓	✓
Ahiphena	*Papaver somniferum* Linn.	✓	—
Jayapala	*Croton tiglium* Linn.	✓	—
Dhattura (*Kanaka*)	*Datura metel* Linn.	✓	✓
Vijaya (*Jaya*)	*Cannabis sativa* Linn.	✓	✓
Gunja	*Abrus precatorius* Linn.	✓	—
Bhallataka (*Nilaka*)	*Semecarpus anacardium* Linn.f.	✓	✓
Karavira	*Nerium indicum* Mill.	✓	✓
Langali	*Gloriosa superba* Linn.	✓	✓
Arka Kshira	*Calotropis procera* (Ait.) R.Br.	✓	✓
Snuhi Kshira	*Euphorbia neriifolia* Linn.	✓	—

✓ = Mentioned in the respective text; — = Not mentioned.

***Shodhana* Procedures of Important *Upavisha* Drugs**

In Ayurvedic pharmaceutics, *Shodhana* is an essential procedure employed to reduce toxicity and enhance the therapeutic utility of *Upavisha* drugs. Classical *Rasashastra* texts, including *Ayurveda Prakasha*, *Yogaratnakara*, and *Rasa Tarangini*, describe various purification methods using media such as *Gomutra*, *Godugdha*, *Kanjika*, *Ghrita*, and herbal decoctions. A comparative overview of these *Shodhana* procedures is presented in Table 2.

Table 2. Various *shodhana* Procedures for Individual *upavisha* drugs [12]

Sl. No.	Drug	*Ayurveda Prakasha*	*Yogaratnakara*	*Rasa Tarangini*
1	*Vatsanabha*	Cow's urine immersion (3 days); boiling in cow's milk or goat's milk (3 hrs)	*Gomutra* immersion and sun drying (3 days)	Cow's urine immersion (3 days); boiling in goat's milk (3 hrs)
2	*Snuhi Kshira*	—	—	Addition of ¼ *Cinca drava* followed by sun drying
3	*Arka Kshira*	—	—	—
4	*Dhattura*	*Gomutra* immersion for 12 hrs and removal of seeds	*Gomutra* immersion for 12 hrs	*Gomutra* with *Godugdha* boiling (3 hrs)
5	*Karavira*	—	Boiling in cow's milk	—
6	*Langali*	*Gomutra* immersion (1 day)	*Gomutra* immersion (1 day)	—
7	*Vishamushti*	Frying in ghee	Frying in ghee	Frying in ghee; boiling in cow's milk for 3 hrs; soaking in *Kanjika* for 3 days and decocting
8	*Gunja*	Boiling in *Kanjika* (3 hrs)	Boiling in *Kanjika*	Boiling in *Kanjika* (3 hrs); boiling in cow's milk (6 hrs)
9	*Ahiphena*	Ginger juice *Bhavana*	Ginger juice *Bhavana*	Ginger juice *Bhavana*
10	*Bhanga*	Boiling with *Babbula Twak Kwatha*; *Bhavana* with cow's milk	Boiling with *Babbula Twak Kwatha*	Boiling with *Babbula Twak Kwatha*; frying in cow's ghee
11	*Bhallataka*	—	—	Rubbing with brick powder followed by washing and boiling in water
12	*Jayapala*	—	Decoction and boiling in cow's milk	—

The comparison of *shodhana* procedures reveals considerable variation among classical texts regarding purification media, duration, and pharmaceutical techniques. *Gomutra, Godugdha, Kanjika*, and *Ghrita* are the most commonly employed media. Despite procedural differences, the primary objective remains

detoxification and enhancement of therapeutic applicability of *Upavisha* drugs

Classification of Toxic Substances under Schedule E (Drugs and Cosmetics Act, 1940)

According to the provisions of Drugs and Cosmetics Act, 1940, *Schedule E* lists substances that are considered toxic and require cautious handling in medicinal use. These substances are systematically classified based on their origin into three primary groups. Several *Upavisha* drugs are included under Schedule E1 along with other toxic substances recognized in Ayurveda. Details are listed in Table 3

Table 3. Toxic Substances Included under Schedule E1 of the Drugs and Cosmetics Act, 1940

Sl. No.	Drug Name	Botanical/Chemical Name	Origin
1	*Ahipena* (except seeds)	*Papaver somniferum* Linn.	Vegetable
2	*Arka*	*Calotropis procera* (Ait.) R.Br.	Vegetable
3	*Bhallataka*	*Semecarpus anacardium* Linn.f.	Vegetable
4	*Bhanga* (except seeds)	*Cannabis sativa* Linn.	Vegetable
5	*Danti*	*Baliospermum montanum* Müll.Arg.	Vegetable
6	*Dhattura*	*Datura metel* Linn.	Vegetable
7	*Gunja* (seed)	*Abrus precatorius* Linn.	Vegetable
8	*Jayapala* (seed)	*Croton tiglium* Linn.	Vegetable
9	*Karaveera*	*Nerium indicum* Mill.	Vegetable
10	*Langali*	*Gloriosa superba* Linn.	Vegetable
11	*Parasika Yavani*	*Hyoscyamus niger* Linn.	Vegetable
12	*Vatsanabha*	*Aconitum chasmanthum* Stapf ex Holmes	Vegetable
13	*Vishamushti*	*Strychnos nux-vomica* Linn.	Vegetable
14	*Shringivisha*	*Aconitum chasmanthum* Stapf ex Holmes	Vegetable
15	*Sarpa Visha*	Snake poison	Animal
16	*Gauripashana*	Arsenic	Mineral
17	*Haritala*	Arsenic sulphide	Mineral
18	*Manashila*	Arsenic sulphide	Mineral
19	*Parada*	Mercury	Mineral
20	*Rasa Karpura*	Hydrargyri subchloridum	Mineral
21	*Tuttha*	Copper sulphate	Mineral
22	*Hingula*	Cinnabar	Mineral

This categorization highlights the diverse sources of toxic substances utilized in traditional medicine and underscores the importance of proper processing, dosage regulation, and safety considerations while incorporating them into therapeutic practice.

Therapeutic Importance of *Upavisha*

Despite their toxic nature, *Upavisha* drugs possess significant therapeutic potential when administered after proper *Shodhana* and dose regulation. They are used in Ayurvedic formulations for the management of painful conditions,

neurological, respiratory, dermatological, digestive, and musculoskeletal disorders. Their reported pharmacological activities include analgesic, anti-inflammatory, stimulant, sedative, purgative, and nervine effects. Classical texts recommend administration in very small doses following appropriate purification procedures to ensure safety and minimize toxic manifestations.

Important Ayurvedic Formulations Containing *Upavisha* Drugs

Several classical Ayurvedic formulations contain *Upavisha* drugs as important ingredients. Common formulations containing *Upavisha* drugs are listed in Table 4.

Table 4: Important Ayurvedic Formulations Containing *Upavisha* Drugs [13]

Upavisha Drugs	Important Formulations	Major Therapeutic uses
Vishatinduka[14]	*Agnitundi Rasa, Lakshmivilasa Rasa*	*Deepana, Vatakaphahara*, stimulant, neural disorders, paralysis, digestive weakness
Ahiphena [15]	*Vedanantaka Rasa, Nidrodaya Rasa*	*Vedanasthapana, Nidrajanana, Atisarahara, Kasa*
Dhattura [16]	*Kanakasava, Unmadagajankusha Rasa*	*Shwasa, Kasa, Vedana, Sandhivata,* external analgesic
Bhallataka [17]	*Bhallataka Rasayana*	*Kushta, Amavata, Arsha, Grahani, Rasayana*
Gunja [18]	*Gunjadya Taila*	*Kustha, Khalitya, Indralupta*, external applications

Recent phytochemical and pharmacological investigations provide scientific evidence supporting the Ayurvedic concept of *shodhana.* Comparative analytical studies employing HPLC, HPTLC, LC-MS, and related techniques have demonstrated that purification procedures induce qualitative and quantitative changes in the phytochemical composition of several *Upavisha Dravyas*. These changes are mainly attributed to hydrolysis, extraction, degradation, oxidation, and interactions with the purification media, resulting in a reduction of toxic constituents while retaining or improving therapeutic activity. Among the various *Upavisha* drugs, *Vatsanabha* exhibits the most extensively documented chemical transformation, wherein highly toxic diester diterpenoid alkaloids such as aconitine are hydrolysed to less toxic monoester alkaloids, including benzoylaconine. In contrast, other *Upavisha* drugs such as *Vishatinduka, Bhallataka, Jayapala, Gunja, and Dhattura* predominantly demonstrate reductions or alterations in their toxic phytoconstituents rather than complete conversion into new therapeutic compounds. A summary of the reported phytochemical modifications and their therapeutic implications is presented in Table 5.

Table 5. Reported phytochemical modifications in selected *Upavisha Dravyas* following *shodhana* and their therapeutic implications.

Upavisha	Major toxic phytoconstituent(s)	Reported changes after *shodhana*	Therapeutic implication
Aconitum ferox (*Vatsanabha*)[19]	Aconitine, mesaconitine, hypaconitine (diester diterpenoid alkaloids)	Significant reduction in aconitine-related alkaloids with appearance of new HPTLC peaks, suggesting formation of less toxic bioactive constituents.	Marked reduction in toxicity while retaining analgesic and anti-inflammatory activity
Strychnos nux-vomica *(Vishatinduka)* [20]	Strychnine, brucine	Significant reduction in alkaloid content due to extraction and partial degradation during *shodhana*	Improved safety with preservation of stimulant and nervine actions
Semecarpus anacardium (*Bhallataka*) [21]	Bhilawanols, anacardic acids	Reduction of irritant phenolic compounds; alteration in phenolic profile	Reduced vesicant property with maintained anti-inflammatory and immunomodulatory activity
Croton tiglium (*Jayapala*) [22]	Phorbol esters	TLC demonstrated migration of phytoconstituents between *Jayapala* and milk; common peaks indicated transfer of constituents. The free crotonoleic acid was proposed to interact with milk fatty acids during *shodhana*.	Reduced irritancy and toxicity with improved therapeutic safety.
Abrus precatorius (*Gunja*)[23]	Abrin (toxalbumin)	Preliminary phytochemical analysis showed reduced/undetectable protein in processed samples, decreased total protein content, and alterations in phytochemical profile depending on the purification medium. The authors suggested that denaturation or removal of the toxic protein abrin may occur during *shodhana*.	Reduced toxicity with continued therapeutic use

Datura metel (*Dhattura*)[24]	Atropine, hyoscyamine, scopolamine	Partial reduction in tropane alkaloids	Lower anticholinergic toxicity while maintaining bronchodilator activity
Papaver somniferum (*Ahiphena*) [25]	Morphine, codeine, thebaine	Slight reduction in total alkaloids; no confirmed conversion to new therapeutic compounds	Improved safety through controlled alkaloid content

DISCUSSION: *Upavisha Dravyas* occupy a unique position in Ayurveda due to their dual nature as both toxic and therapeutic substances. Unlike *Mahavisha*, they possess comparatively lower toxicity and can be used medicinally following appropriate pharmaceutical processing. Variations in the classification and enumeration of *Upavisha* drugs across classical texts such as *Rasa Ratna Samuccaya*, *Rasendra Chudamani*, *Ayurveda Prakasha*, and *Rasa Tarangini* reflect the evolving understanding of their toxicity and therapeutic utility. The increasing inclusion of *Upavisha* drugs in later *Rasashastra* literature highlights their recognized medicinal potential. [26] These substances are incorporated into Ayurvedic formulations because of their diverse pharmacological actions, including analgesic, anti-inflammatory, stimulant, sedative, purgative, and rejuvenative effects. This supports the Ayurvedic principle that potentially harmful substances can become valuable medicines when properly processed and administered in appropriate doses.[27]

Shodhana remains the cornerstone for the safe therapeutic use of *Upavisha* drugs. Classical texts describe various purification methods employing media such as *Gomutra*, *Godugdha*, *Kanjika*, and *Ghrita* to reduce toxicity while preserving therapeutic efficacy. Different *Shodhana* media are selected based on the physicochemical nature of the *Upavisha* drug and the therapeutic objective. *Gomutra*, being alkaline and rich in volatile constituents, facilitates detoxification of alkaloid-rich drugs such as *Vishatinduka* and *Bhallataka. Godugdha* provides lipid and protein components that may reduce irritant and lipophilic toxic constituents while imparting cooling properties. *Kanjika*, an acidic fermented medium, promotes hydrolysis and removal of undesirable phytochemicals, whereas *Ghrita e*nhances lipid-soluble extraction and mitigates tissue irritation. Thus, the choice of purification medium is based on both Ayurvedic pharmacodynamic principles and probable phytochemical modifications demonstrated in experimental studies. Contemporary studies also suggest that these procedures modify phytochemical composition and improve safety profiles, providing scientific support for traditional practices. [28]

Several *Upavisha* drugs, including *Vatsanabha, Bhallataka, Vishamushti, Dhattura,* and *Vijaya,* continue to attract

scientific interest because of their significant pharmacological activities. Their inclusion under Schedule E1 of the Drugs and Cosmetics Act, 1940, further emphasizes the need for strict adherence to purification procedures, dosage regulation, and quality control measures. [29]

Despite their therapeutic importance, concerns regarding toxicity, standardization, and insufficient scientific evidence remain. Improper purification, inaccurate dosing, and poor-quality raw materials may lead to adverse effects.[30] Although *Upavisha* drugs possess significant therapeutic potential after appropriate *Shodhana* (purification), their improper processing or administration in excessive doses (*Atiyoga*) may result in serious toxic manifestations. Classical Ayurvedic texts emphasize that these substances should never be used in their raw (*Ashuddha*) form and must be administered strictly according to the prescribed dose (*Matra*), as improper use can produce *Visha Lakshanas* (toxic symptoms). Modern toxicological evidence further substantiates these traditional observations. *Vishatinduka* (*Strychnos nux-vomica*), when inadequately purified or administered in excess, may produce neuromuscular toxicity characterized by muscle rigidity, hyperreflexia, painful convulsions, and respiratory failure due to central nervous system stimulation. Similarly, *Bhallataka* (*Semecarpus anacardium*) contains potent irritant constituents that may cause severe burning sensation, erythema, blister formation, contact dermatitis, oral ulceration, and gastrointestinal irritation if used without proper purification. Improperly processed *Dhattura* (*Datura metel*) may exhibit anticholinergic toxicity, presenting with dry mouth, mydriasis, tachycardia, delirium, hallucinations, hyperthermia, and, in severe cases, coma. Likewise, ingestion of inadequately purified *Gunja* (*Abrus precatorius*) can lead to nausea, vomiting, diarrhea, abdominal pain, hepatotoxicity, nephrotoxicity, and potentially life-threatening multi-organ dysfunction due to the presence of the toxalbumin abrin. These observations reinforce the Ayurvedic principle that *Shodhana* is not merely a pharmaceutical procedure but a critical detoxification process that reduces toxicity while preserving or enhancing therapeutic efficacy. Therefore, strict adherence to classical purification methods, recommended dosage, and proper clinical supervision is essential for the safe therapeutic use of *Upavisha Dravyas*. [31]

Experimental studies suggest that *shodhana* modifies the phytochemical profile of *Upavisha Dravyas* by reducing toxic constituents and, in some cases, forming less toxic derivatives while preserving therapeutic activity. Among these, *Vatsanabha* shows the most well-documented chemical transformation, with hydrolysis of aconitine into less toxic monoester alkaloids. However, similar evidence for other *Upavisha* drugs remains limited. Further metabolomic studies using advanced analytical techniques are needed to validate these phytochemical changes and their therapeutic significance. Therefore, standardization of *Shodhana* procedures, authentication of raw materials, implementation of Good Manufacturing Practices, and application of modern analytical techniques are

essential. Further pharmacological, toxicological, and clinical studies are required to validate their safety and efficacy. Integrating classical Ayurvedic knowledge with contemporary scientific research will strengthen the rational and safe use of *Upavisha Dravyas* in modern healthcare. [32]

CONCLUSION: *Upavisha Dravyas* represent an important group of therapeutically valuable substances in Ayurveda, possessing both toxic and medicinal properties. Classical texts provide detailed information on their classification, *Shodhana* procedures, and therapeutic applications, emphasizing detoxification as a prerequisite for safe clinical use. Despite their toxic potential, these drugs continue to be widely utilized in Ayurvedic formulations due to their diverse pharmacological actions. Standardization of *Shodhana* methods, quality control, and scientific validation through pharmacological and toxicological studies are essential to ensure their safety and efficacy. Integrating classical knowledge with modern research may further strengthen the rational and safe use of *Upavisha Dravyas* in contemporary healthcare. Future multidisciplinary studies integrating Ayurvedic pharmaceutics with phytochemistry, toxicology, and clinical research are essential to establish standardized evidence-based therapeutic protocols for *Upavisha* drugs.

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