



Review Article

STHAVAR VISHA- NEED OF BALANCE IN TRADITION AND SAFETY

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ABSTRACT

The ancient Indian system of medicine has a long history of using poisonous herbs and minerals, known as *Sthavar Visha*, which are an integral part of Ayurveda medicines used for therapeutic purposes. It involves a delicate balance between harnessing the medicinal properties of these substances and mitigating their potential risks. These toxic substances can be transformed into beneficial medicines through meticulous processing, while the improper use of *Sthavar Visha* can lead to significant toxicity and may cause harm instead of causing benefits. This manuscript explores the diversity of *Sthavar Visha*, the challenges of complex formulations, variability in quality, and the lack of standardized dosages. Case studies on *Aconitum ferox* (*Vatsanabha*) and mercury-based preparations highlight the measures of potential dangers along with their solutions. Addressing these risks requires stringent quality assurance, substantial research and clinical trials, effective regulatory oversight, and increased education and awareness. Pharmacovigilance in Ayurveda, although currently underutilized, plays a crucial role in monitoring adverse effects and ensuring the safety of Ayurveda practices. Effective regulatory oversight is crucial for monitoring the use of potentially toxic substances and ensuring compliance with safety standards. Implementing post-marketing surveillance programs and encouraging adverse event reporting can help identify potential safety concerns and take timely corrective actions. Combining traditional knowledge with safety methods is essential for promoting health and ensuring quality treatment in Ayurveda's growing global popularity. A harmonious integration of tradition and safety measures will pave the way for a robust and sustainable future for Ayurveda medicine.

INTRODUCTION

Ayurveda, the ancient Indian system of medicine, has a rich history of utilizing poisonous herbs and natural mineral substances for therapeutic purposes. These are mainly known as *Sthavar Visha* which is poisonous plant and heavy metals. In *Ashtang Ayurveda* is divided in eight branches among which *Agad Tantra* is an important branch, which covers study of poisonous plants and minerals and animal poisons [1]. *Agad tantra* also includes natural poisons and artificial poisons as well while Ayurveda

herbs are celebrated for their healing properties, poison is which after entering in the body get circulated in very fast and causes sadness [2]. It is essential to acknowledge that not all *Sthavar Visha* are devoid of potential risks. The use of *Sthavar Visha* in Ayurveda requires a delicate balance between traditions and modern which is also important for patient safety. As described in our ancient literature a poison can be converted into a medicine by application of *Yukti* [3] similarly a medicine can be converted into a poison by intention of provider, References regarding *Visha* or poison and poisoning can also be traced in *Vedas*[4]. In *Atharvaveda* (1500 BC)[5], description of two types of *Visha* i.e., *Sthavara* and *Jangama* and their management through *Mantrachikitsa* is narrated. [6]

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Diversity of *Sthavar Visha*

Sthavar (plant and mineral poison) and *Jangam Visha* (animal poison) are two main category of poisons [7] described in *Agad Tantra*, sites of *Sthavar* and *Jangam Visha* are sixteen and ten respectively [8] Ayurveda relies heavily on a vast array of herbs and minerals remedies [9], which possess unique medicinal properties. From commonly used herbs like turmeric (*Curcuma longa*) to lesser-known plants like *Vatsanabha* (*Aconitum ferox*), Ayurvedic formulations are diverse and complex [10]. However, this diversity also brings with it the potential for adverse effects, especially when certain *Sthavar Visha* are not used judiciously [11]. Whenever a formulation is prepared it should be prepared with full precaution as it may cause deleterious effects on human health. but a big problem exist in view of Ayurveda academicians and clinicians as whenever such kind adverse effect reports are published, the denial mode is switched on without any acceptance towards facts and few very popular and unacceptable excuses are given like proper doses would not be taken and proper sampling would not be done “and the major point of problem is left behind, although the truth is that any formulation can be toxic with multiple factors like wrong doses etc. and error may be possible with sampling also, but we should understand that formulations containing poisonous ingredients could be toxic even with advised dosed and even on following manufacturing and consumption precautions.[12,13] Toxicity concerns of Ayurveda medicines. Several factors may contribute to the potential toxicity of Ayurveda medicines.

Complex Formulations

Mostly Ayurveda medicines are complex formulations as they contains multiple ingredients [14] and not only complexity lies in terms of multiple plants but these may be herbo-mineral preparations, means which contains plants and mineral indigents and each part have multiple effects and side effects.

Traditional Ayurveda formulations often involve the combination of multiple herbs to enhance therapeutic effects. While these combinations can be beneficial, they may also introduce complexities in understanding the safety profile of each individual herb and mineral these herbominerals are mixed with *Sthavar Visha* and these *Visha* are taken with appropriate caution [15,16].

Variability in Quality

Quality control and standardization of these Ayurveda medicines present challenges in the Ayurveda industry[17,18]. The popularity of Ayurveda medicines demands its more production but on the same way the quality should be maintained equally but variability in the quality of raw materials and finished

products can impact the consistency and safety of herbal medicines.[19,20] *Sthavar Visha* are added in such medicine after proper purification which are described in Ayurveda literature.[21,22]

Lack of Standardized Dosages

Unlike contemporary pharmaceutical drugs, Ayurveda medicines may lack standardized dosages, leading to variations in the amount of active compounds administered. This variability can contribute to unexpected side effects or toxicity. The doses mentioned in ancient texts were more appropriate for the time when these texts were written, but now a days when we are not having similar environment and other conditions, these doses need correction, even after untiring efforts of AYUSH Ministry still Ayurveda pharma industries are escaping set parameters for standard formulation, a great change is seen after clinical trials are made compulsory to get a proprietary medicine licence, the big bulls of Ayurveda pharma industry manipulates rules and regulation as per their convenience and when things gets worst then it harms Ayurveda first, because these Big Bulls escape the situations by saving their faces.

Case Studies

Several *Sthavra Visha* as the name suggest are basically *Visha* i.e., poisons and toxicity concerns is always associated with *Visha*, the need for caution and awareness is always important in dealing with *Visha*.

Aconitum ferox (*Vatsanabha*)

Aconitum ferox (*Vatsanabha*)[23,24] commonly used in Ayurveda formulations and this is used in small problems like fever to severe disease like heart disease, *Vatsnabh* contains toxic alkaloids and by purification these alkaloids are converted into beneficial forms[25,26]. Improper processing or dosage can lead to severe poisoning, with symptoms ranging from easily treatable nausea to life threatening respiratory failure and even death [27].

Mercury-Based Preparations (*Rasashastra*)

Mercury is main ingredient of Rasaushidies, *Rasa* means *Parad* which is a metal, and very poisonous in nature, it requires purification techniques by which these toxic metals are used as a medicine

The *Ras aushadhi* involves the use of metals, such as mercury (*Parada*), after purification. While these formulations are believed to have therapeutic benefits, improper processing or excessive dosage can result in mercury toxicity [28,29].

Addressing *Sthavar Visha* Toxicity

1. Quality Assurance

Emphasizing stringent quality control measures, including testing for contaminants and

standardizing herbal products, can enhance the safety of Ayurveda medicines. [30]

2. Research and Clinical Trials

Encouraging scientific research and clinical trials on Ayurveda medicines can provide valuable insight into their safety and efficacy. Collaborative efforts between traditional knowledge and modern research are essential. [31,32]

3. Regulatory Oversight

Strengthening regulatory frameworks for the production, labelling, and sale of Ayurveda medicines is crucial. This includes monitoring the use of potentially toxic substances and ensuring compliance with safety standards. [33,34]

Education and Awareness

Raising awareness among healthcare professionals, traditional practitioners, and the public about the potential risks and benefits of *Sthavar Visha* is essential for safe usage [35].

Pharmacovigilance in Ayurved [36,37]

Pharmacovigilance in Ayurveda refers to the systematic monitoring, detection, assessment, understanding, and prevention of adverse effects or any other drug-related problems associated with Ayurveda medicines [38,39].

Pharmacovigilance, although a crucial measure implemented by the government, has yet to demonstrate its significance in the AYUSH sector. This is due to the negligible reporting of adverse drug reactions (ADRs), which stems from a lack of awareness, social incompetence, fear of losing patients among AYUSH practitioners, and insufficient knowledge in other groups. Despite the occurrence of numerous ADRs within the AYUSH sector, reporting is not commonly practiced, and concealing such events remains prevalent across all age groups.

It plays a crucial role in ensuring the safety and efficacy of herbal and traditional remedies used in Ayurveda practice. Here are key aspects of pharmacovigilance in Ayurveda:

1. Public Awareness and Education

Increasing public awareness about the potential risks and benefits of herbal medicines is essential. Users should be educated about proper usage, potential side effects, and the importance of consulting healthcare professionals. [40,41] Paramedics an important chain which plays a key role in treatment line , should be properly trained about ADR and other essential aspects of pharmacovigilance.

2. Adverse Event Reporting

Establishing effective mechanisms for reporting and monitoring ADR related to herbal medicine use is

crucial for identifying potential safety concerns and taking timely corrective actions. [42-44]

By reporting and monitoring ADR we can reduce no. of adverse drug reactions and can prevent future ADR.

3. Post-Marketing Surveillance

Implementing post-marketing surveillance programs is crucial for monitoring the safety of Ayurveda medicines after they have been introduced to the market. This includes continuous monitoring of adverse events and updating safety information. [45]

This is most important and neglected part of pharmacovigilance in Ayurveda, A misunderstanding among society is that Ayurveda Medicine are safe and free of adverse effects, this is need of time to correct and reconsider this theory which only harm Ayurveda, because as we know even in our ancient literature it is mentioned that nothing is safe even a high dose of water can kill a person.

4. Ethical Considerations

Ethical considerations in medical science were first described in Ayurveda, and a lot of importance is given to ethics on different places in literature [46], adhering to ethical principles in pharmacovigilance ensures the protection of patient rights and confidentiality. Ethical considerations include obtaining informed consent for reporting adverse events and safeguarding patient privacy. [47,48]

In conclusion, pharmacovigilance in Ayurveda is indispensable for maintaining the safety and efficacy of traditional medicines. By addressing the unique challenges associated with Ayurveda formulations and fostering collaboration between traditional and modern medicine practices, pharmacovigilance contributes to the overall improvement of healthcare safety standards. [49, 50]

CONCLUSION

Ayurveda's holistic approach to healthcare, rooted in natural remedies, offers a unique perspective on well-being. However, as the popularity of Ayurveda medicines is growing globally, it becomes imperative to address the potential risks associated with herbal and mineral medicinal toxicity. By combining traditional wisdom with modern scientific rigor, Ayurveda can continue to play a significant role in promoting health while ensuring patient safety remains paramount. A harmonious integration of tradition and safety measures will pave the way for a robust and sustainable future for Ayurveda medicine.

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