JETIR.ORG ISSN: 2349-5162 | ESTD Year : 2014 | Monthly Issue
JOURNAL OF EMERGING TECHNOLOGIES AND INNOVATIVE RESEARCH (JETIR)
An International Scholarly Open Access, Peer-reviewed, Refereed Journal

A Bigoted Alliance in the Fanaticism of Toxicity in Ayurvedic Bhasma

Sushant Sud, Dr. Khyati Sud, Dr Hemaxi Mankodi, Dr. Sachin Mangattu,

Dr Sushil Jangid

Ass. Prof, Lab. TechPhD Scholar

Dept of Agad Tantra, ITRA, INI, Jamnagar,Shri VM Mehta Institute of Ayurved, ITRA, INI, Jamnagar

Abstract:

Background: A supernatural problem has emerged in the last few decades over a particular type of herbo-mineral preparation known as bhasmas. In this particular case, patients who took such drugs may have experienced severe side effects or perhaps died. Due to the fact that these medications include metals, particularly covered lead or mercury, their toxicity has been attributed to the patients' suffering.. **Aim & Objectives:** The article attempts to examine this writing, focusing in particular from the perspective of the affairs of state of knowing and hence highlight hierarchies within side the epistemologies of medical knowledge structures with the clinical evaluation of those herbo- mineral measures. The modes of translation among the epistemologies of different knowledge systems that have characterised the process of making "traditional" knowledge contemporary are the main focus of the article, which demonstrates how this occurs through courses that are categorically essential of bhasmas, the ones that might be protecting them, and people that indicate a mean position. **Methods and Materials:** As a result, a wealth of literature on the issue of Ayurvedic medication toxicity appeared in public debate, with a tone that was both accusing and protective. This demonstrated the potential for their criticism, which might have a negative impact on their credibility and cause them to stop speaking in their markets. A resurgent Ayurveda is fashionable as a more secure opportunity to chemical drug treatments. In fact, the detrimental outcomes of cutting-edge tablets have prompted a look for drug treatments from not only herbal but also from herbo-mineral point of view and there more secure sources, hence bringing conventional structures of drugs into the limelight. **Conclusion:** The notion is that drug treatments derived from plant life processed in crude shape without the isolation of the lively molecules could be more secure.

Key-words:

Ayurveda; Bhasma, Herbo-mineral preparations Toxicity, metals in medicine

Key Messages:

One of the key areas of Ayurvedic medicine's disease management system is rasasatra. Texts contain a variety of mineral, metal, and herbo-mineral medication combinations. The term "pseudoscience" originated from debate over the usage of some of the medications. It has been said that these medications cause suffering because of their toxicity. Many medications and formulations are not in use at the moment and are categorised as controversial because of their scarcity, unavailability, and incorrect interpretations of the substance. This essay looks at the problem from the standpoint of affairs of state of knowledge.

Introduction:

One of the most ancient and well-practiced traditional Indian medical systems, Ayurveda has become increasingly popular in Western countries recently, along with other complementary and essential medical systems. The World Health Organisation (WHO) reports that up to 80% of people worldwide rely on traditional drugs to meet their medical needs, and that between 35 and 75 percent of people living in developed nations report using traditional medicines. In contrast to allopathic drugs, there is insufficient regulation surrounding the production and distribution of traditional remedies. In Western nations, Ayurvedic medications may be obtained without a doctor's consultation through ethnic food stores, online retailers, tone-importation, Ayurvedic interpreters, and/or health food stores. Though based on herbal items, Ayurvedic formulations often contain toxic essence and other basic ingredients as part of Rasa Shastra practice. These basic materials are utilised with purpose because, according to Ayurvedic tradition, heavy metals such as lead, mercury, copper, gold, iron, silver, tin, and zinc may aid in the restoration of the mortal body's proper function and state of health. In Ayurvedic goods, arsenic, aluminium, cadmium, chromium, and nickel may also be present. An estimated twenty or more Ayurvedic products produced and marketed by American and Indian businesses are thought to contain toxic ingredients like lead, mercury, and/or arsenic. [1, 2]

Ayurvedic herbo-mineral treatments, called bhasmas in Ayurvedic terminology, have been linked to incidences of "poisoning" in recent times. These reports have caused a lot of controversy in the public and academic media in India, the US, and Europe. They have also been published in academic papers and the popular press. There are three related components to this discussion. Based on this, there is a debate on how different knowledge systems—in this case, mostly Ayurvedic and biomedicine—interpret toxins. With Ayurvedic pharmaceuticals becoming more and more popular and in demand, as well as a legitimate requirement for their legal and scientific processing, the third factor that comes to light concerns the production and regulatory framework surrounding them. The argument and challenges surrounding bhasmas may be viewed in a completely different light if the

concerns in these three areas were critically examined from the standpoint of the politics of knowledge. It is demonstrated that the seemingly incompatible ideas surrounding bhasmas are regulated by scientists who are committed to their calling and present a middle ground. Additionally, a politics of knowledge perspective will be applied to the analysis of the counter-accusations of the non-supervisory and manufacturing frames that recast Ayurvedic pharmaceuticals, whether through altering the production process or the expression itself. [3]

Materials and Methods:

- **The phenomenology of Bhasma (Metaphorically)**

In modern aspect nanotechnology is an emerging day to day which included synthesis and material dimension in range like 1 to 100 nm [4]. In past years there has been increase in the application of nanomedicine in various biomedical application like drug delivery, photoblation therapy and bio-imaging [5]. Researcher have continuously synthesised various methods for synthesis of nanoparticle. Here various methods like physical, chemical and biosynthesis [6] [7]. Consequently, there are numerous issues with both the use of hazardous chemicals in chemical processes and physical processing. However, alternative techniques such as green synthesis have been explored here [8]. Green synthesis is a simple, effective, and environmentally friendly technique of synthesis when compared to chemical mediated synthesis. [9].

When items of essence, mineral, or animal origin are burned or calcined using a specific method, the resultant material is referred to as bhasma. Any biological or inorganic material burned into ash is what it really means. Similar to most other Ayurvedic medications, there are three important things to know about them: first, they are prescription medications that should not be taken without a prescription (OTC); second, it is best to tailor the medication to the specific constitution-type of the patient; and third, when using the medication, it is recommended that all recommended preventives be followed. If any of these are not followed, the case may not go as planned. Furthermore, any medication that contains a good could also have a bad one, particularly if it's unclear how the drug is interacting with the body. This can create a risk because patients frequently take medications from one medical knowledge system without disclosing to the practitioner from the other that they may be consulting in many parts of the world. [10]

For two reasons—despairing on the one hand, and the widely held notion that "traditional" drugs are safe to take in addition to other medications because they don't harm or interfere with biomedical medicine conduct—patients cannot be held accountable for experimenting with different effects. The latter point might be the exception, especially when using a commodity as powerful as herbo-mineral composites. Additionally, the book's detailed purification procedure is the only guarantee against the bhasma still's essence toxin being removed. It is also believed—and this belief is based on usage and practice—that the essence has been converted into its medicinal value, with the vaidyas guaranteeing

its non-toxicity. Ayurvedic guidelines must be followed when estimating a drug's toxicity because they set the highest standards of safety. As this piece develops, the details of this argument are clarified. The first point needs to be emphasised regarding the use of bhasmas of the three points stated above: they should only be taken according to tradition and should not be purchased over-the-counter by anybody. It raises the question: Why do so many situations today go in the exact opposite direction?

This so-called "traditional" systems and their products are perceived as widely participated in, yet appearing to be unrelated. This suggests that these systems have effective medications without any adverse effects, particularly for conditions for which biomedicine does not yet have a suitable treatment. Though seemingly constructive, this type of view really works against these all-encompassing knowledge systems and the methodical epistemologies that underpin diagnosis, therapy, and opinion. The fact that giving these medications is typically the result of intricate evaluations of three impacts is something that most individuals in India's civic places, where tone-drug and opinions to conclude for necessary drug are most prevalent, overlook or are unaware of the terms of the complaint, the structure of the case, and the ongoing evaluations of the effects of the drugs. Rather, they feel that the only information they really need to know is that these medications are safe, effective, and little different. Neither the case, nor any other croakers, nor the Ayurvedic medicine interpreters are accountable for this. It has been countered that this image stems from the way Indian companies selling ayurvedic medicines as over-the-counter (OTC) items present their products. [11, 12]

- **Edifice of toxicity in Ayurved scaffold and gibbet**

The politics of knowledge, in my opinion, is the real issue in the toxin debates. This indicates that the hegemonic position of the biomedical lores over those of "non-modern" knowledge systems has rebounded in the establishment and patient conservation of a scale among colorful forms of medical knowledge. The established superior frame of reference is the epistemological foundation of the biomedical lores. As a result, it has also been used to estimate treatments and specifics from "non-modern" knowledge systems. It's apparent from the maturity of the papers examined above that Ayurveda's frame for assaying and assessing toxin in Ayurvedic drugs is fully foreign in terms of structure and content. Still, the lack of recognition of epistemological frames outside of those of contemporary biochemistry, which informs biomedicine, is demonstrated by the confidence with which similar analysis is presented by scientists and, indeed more so, published in estimable transnational journals. This conviction needs to be questioned in order to show the discordance between the two frames of analysis, which is brought about by the hegemonic status of biomedicine and an abecedarian difference in the epistemologies of the two medical knowledge systems.

The problem can be resolved by applying an essential framework for evaluating toxins in Ayurvedic herbal and mineral remedies. This suggested framework would be based on an analogy that seeks to incorporate some of the Ayurvedic system's foundational principles into contemporary pharmacology. The discourse shouldn't be impacted by the unease that a knowledge scale has previously been

established. This suggested framework should comprise all phases of medicine delivery, patient supplies, and evaluation. Though biomedicine would also follow these stages astronomically, the parameters that comprise these stages—the authentic description of the complaint condition, in terms of the imbalance of humours, the line of treatment, and the anticipated issues—are unnaturally different in Ayurveda and have an internal thickness. This distinction must therefore be acknowledged and respected while developing and implementing research methodologies. This may be achieved if researchers in the biomedical field were aware of the Ayurvedic epistemology and were not afraid of the intricate nature of Ayurveda. Making a bhasma is a complex procedure, as was illustrated in a previous section. [13, 14, 15]

Discussion

Many of the mentioned papers always discuss the difficulties of the processes of creating bhasmas and raise issues about whether these are being followed. This is because of the hurry and homogeneity that characterise the modern production of all commodities, to which Ayurvedic items now invariably belong. They also discuss the food and nutrition plan that go along with every Ayurvedic medication because of the rationale behind bioavailability and the harmony of humours made possible by this combination.

If a diet is recommended to accompany a drug and is adhered to, a number of non-medical elements come into play. One illustration is the speed with which people's dietary preferences shift, particularly in cities. The acknowledgement of the possibility of sustainable agriculture and medicine production may also be necessary, even though the cultural norms that direct people on the ground to use Ayurveda and similar systems continue to inform their conscious and practical practices. In a society where food is medicine, eating should always be done according to the season. Since it is linked to the wider chain of prescription, manufacturing, and consumption of medicines, it is crucial to address even though this is a much larger issue when talking about toxicity.

It is not sufficient to consider medical knowledge systems such as Ayurveda and similar ones to be "traditional," as has been the case in the literature for a significant while. Understandable within the new production and practice contexts, these are dynamic research and practice systems. It is imperative to bear in mind that, even though a substantial segment of scientific analysis seems to be driven by the public interest of "the interests of the consumer" and regulations aimed at "the safety of medicines being sold to them," these efforts were meant to serve a public purpose in light of poverty and underdevelopment in countries like India and many other parts of the world. In addition to treating the illness, this also involved helping to preserve the overall health of the populace—a goal that many individuals acquainted with public health care in these countries have not yet given up on. Therefore, it is crucial to recognise that flawed scientific analysis only works to erode these opportunities, and scientists who undertake research should be conscious of a higher duty.

Conclusion

In order to purportedly remove heavy metals, Ayurvedic Bhasma is a metallic-mineral mixture that has been cooked and homogenised with herbal juices or decoctions. Despite the lack of high-quality clinical trial evidence regarding its safety and efficacy, Ayurvedic practitioners widely recommend it for the treatment of many medical ailments. The tension is exacerbated by the opposing patriotic pride, and the confusion persists. Even if their plant or drug may not match a scriptural reference, everyone thinks it to be the real one because it has been used for a very long time and cannot be disproved.

Finally, I want to emphasise once again how important it is to discern between the authenticity of Ayurvedic goods sold on the market and the recommended procedure of their meticulous production and prescription procedures.

References:

1. Kohli KR. Ayurvedic medicines and heavy metals issue. Ayurveda Herit. 2005; 1:5– 6.
2. Chan, Kelvin. "Some aspects of toxic contaminants in herbal medicines." Chemosphere 52.9 (2003): 1361-1371. Available from: https://www.sciencedirect.com/science/article/abs/pii/S0045653503004715
3. Dargan, Paul I., et al. "Heavy metal poisoning from Ayurvedic traditional medicines: an emerging problem?" International Journal of Environment and Health 2.3-4 (2008): 463-474.
4. Shankar, S. S., Rai, A., Ahmad, A., & Sastry, M. (2004). Rapid synthesis of Au, Ag, and bimetallic Au core–Ag shell nanoparticles using Neem (Azadirachta indica) leaf broth. Journal of colloid and interface science, 275(2), 496-502.
5. Ramesh, P. S., Kokila, T., & Geetha, D. (2015). Plant mediated green synthesis and antibacterial activity of silver nanoparticles using Emblica officinalis fruit extract. Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy, 142, 339-343. Available from: https://www.sciencedirect.com/science/article/abs/pii/S1386142515000839
6. Vilchis-Nestor, A. R., Sánchez-Mendieta, V., Camacho-López, M. A., Gómez-Espinosa, R. M., Camacho-López, M. A., & Arenas-Alatorre, J. A. (2008). Solventless synthesis and optical properties of Au and Ag nanoparticles using Camellia sinensis extract. Materials letters, 62(17-18), 3103-3105.Available from: https://www.sciencedirect.com/science/article/abs/pii/S0167577X08001651
7. Raghunandan, D., Bedre, M. D., Basavaraja, S., Sawle, B., Manjunath, S. Y., & Venkataraman, A. (2010). Rapid biosynthesis of irregular shaped gold nanoparticles from macerated aqueous extracellular dried clove buds (Syzygium aromaticum) solution. Colloids and Surfaces B: Biointerfaces, 79(1), 235-240.Available from: https://www.sciencedirect.com/science/article/abs/pii/S0927776510002067

8. Singh, Rakesh Kr, et al. "Study on physical properties of Ayurvedic nanocrystalline Tamra Bhasma by employing modern scientific tools." Journal of Ayurveda and Integrative Medicine 10.2 (2019): 88-93.
9. Sun, Qian, et al. "Green synthesis of silver nanoparticles using tea leaf extract and evaluation of their stability and antibacterial activity." Colloids and surfaces A: Physicochemical and Engineering aspects 444 (2014): 226-231. Available from: https://www.sciencedirect.com/science/article/abs/pii/S0927775714000065
10. Kumar, A., Nair, A. G. C., Reddy, A. V. R., & Garg, A. N. (2006). Availability of essential elements in bhasmas: Analysis of Ayurvedic metallic preparations by INAA. Journal of Radioanalytical and nuclear chemistry, 270(1), 173-180.
11. Banerjee, M. (2013). Politics of Knowledge in the Debates on Toxicity in Ayurvedic Medicines: Recent Controversies over Bhasmas. Asian Medicine, 8(1), 153-179.
12. Mikulski MA, Wichman MD, Simmons DL, Pham AN, Clottey V, Fuortes LJ. Toxic metals in ayurvedic preparations from a public health lead poisoning cluster investigation. Int J Occup Environ Health. 2017 Jul; 23(3):187-192.
13. Yerranaagu Prasad, P.H.C. Murthy, B. Dinesh Kumar. Pharmaceutical Preparation and Toxicological Study of Rasa Bhasma. Int. J. Ayur. Pharma Research 2013; 1 (2): 38-48.
14. Ukey Jaiprakash S, Review on heavy metal toxicity modern and Ayurvedic aspect, World Journal of Pharmaceutical and Medical Research, 2020,6(5), 180-183.
15. Pal, D., & Gurjar, V. K. (2017). Nanometals in Bhasma: ayurvedic medicine. Metal Nanoparticles in Pharma, 389-415.