

A CONCEPTUAL STUDY ON EFFECT OF SHILAJATU

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Article Received on 18/10/2024

Article Revised on 08/11/2024

Article Accepted on 28/11/2024

ABSTARCT

This paper explores the principles of Rasashastra, a key discipline within Ayurveda that utilizes natural substances for disease treatment and the attainment of liberation while living. Emphasizing the balance between nature and human health, Rasashastra relies on rasausadhis (medicinal preparations) for their minimal dosage requirements, rapid effects, and prolonged efficacy. Shilajatu, a significant herbomineral drug, is highlighted for its therapeutic potential, with historical references from Charaka and other Ayurvedic texts detailing its uses and purification methods.

KEYWORDS: Shilajatu, rasashastra, rasaushadhi, Ayurveda.

INTRODUCTION

Ayurveda, recognized as the science of life, highlights the significance of maintaining a balance between nature and human relationships. Within this framework, Rasashastra emerges as a crucial discipline, focusing on the utilization of various natural substances for the purpose of disease alleviation. Adherents of this system assert that it is feasible to achieve Jeevanmukti (liberation while living) through the principles espoused by Rasashastra. Nature is not only a sustainer of life but also a source of healing through its inherent resources.

Rasausadhis are esteemed for their minimal dosage requirements, rapid therapeutic effects, and prolonged efficacy. This branch of Ayurveda has historically played an essential role in the treatment of illnesses. The Rasa Shastra and Bhaishajya Kalpana departments are dedicated to the accurate identification, collection, preservation, and standardization of medicinal preparations, thereby ensuring the integrity and efficacy of Ayurvedic practices.

Shilajeet is a significant herbomineral drug within the category of Maharasa. The esteemed physician Charaka has emphasized its importance, stating, "There is hardly any curable disease which cannot be alleviated or cured with the aid of Shilajeet". The pharmacological properties of Shilajeet have been thoroughly elucidated by Acharya Charaka in the Chikitsa Sthana 1 – 3/48. Further references to Shilajeet can be found in Sushruta Chikitsa Sthana, as well as in Astanga Sangraha and in Sharangadhara Madhyama Khanda. Various purification methods for *Shilajeet* are documented in Ayurvedic texts.

This substance serves as a powerful tonic and alternative remedy for various health conditions.

AIMS AND OBJECTS

1. To compile the literature about *Shilajeet*, from Ayurvedic and modern point of view.

SHILAJEET

Shilajeet is a natural exudate from rock formations occurring on hot, sunny days. Although it is found in various regions globally, India was among the first to recognize and emphasize its remarkable therapeutic value, dating back to centuries before Christ during the era of ancient physicians Charaka and Sushruta. Within the framework of *Ayurveda*, *Shilajeet* is regarded as a potent medicinal substance. Ayurvedic texts indicate that *Shilajeet*, when purified (*shodhita*) and subjected to *bhavana* (the process of adding constituents of a drug for the treatment of specific diseases), possesses the ability to cure even those ailments deemed *asadhya* (incurable). Ancient and medieval texts that form the foundation of Ayurveda consistently uphold the curative and therapeutic properties of *Shilajeet*.

Charaka asserts, "there is hardly any curable disease which cannot be controlled or cured with the aid of *Shilajeet*" (Ch.Shi.1-3/65). This substance serves as a powerful tonic and alternative remedy for various health conditions. In instances of sexual weakness, *Shilajeet* is commonly administered in conjunction with *Asvagandha*. Dr. H. C. Sen recommends extensive application of *Shilajeet* in treating obesity, diabetes, dyspepsia, anasarca, liver and spleen enlargement,

bleeding piles, asthma, among other conditions. Extensive Ayurvedic and contemporary literature exists regarding the application and benefits of *Shilajeet*.

SYNONYMS OF SHILAJATU

Shilajatu, Shailey, Shilaj, Shaildhatuj, Shilamaya, Shilasweda, Shilaniryas, Ashmaj, Ashmajatuk, Girij, Adrij, Ashmotha, Ashmlaksha, Gaireya etc.

TYPES OF SHILAJATU

Types	Charaka Samhita	Sushruta Samhita	Ashtang Hridaya	Brihad Rasraj Sunder	Rasatarangini	Rasajalnidhi
Swarna Shilajatu	+	+	+	+	+	+
Rajata Shilajatu	+	+	+	+	+	+
Tamra Shilajatu	+	+	+	+	+	+
Lauha Shilajatu	+	+	+	+	+	+
Naga Shilajatu	-	+	+	+	-	+
Vanga Shilajatu	-	+	+	+	-	+

In *Rasaratnasamucchaya*, Acharya Vagbhatta has mentioned two types of *Shilajatu*

1. *Gomutra Gandhi Shilajatu* – it has two sub category (a) *Sahsatva* (b) *Nihstatva*
2. *Karpura Gandhi Shilajatu*

In *Rasajalnidhi*, *Shilajatu* has divided in to two types

1. *Girija* – it is again divided into 6 types based on the presence of metal in it (a) *Kanchana* (b) *Rajata* (c) *Tamra* (d) *Lauha* (e) *Vanga* (f) *Yashada*.

2. *Usharaka* – it is again divided into two types:

- (a) *Kshara* or White coloured (b) Red coloured like fire.

PURIFICATION

Prior to the administration of any drug, it is essential that the drug undergoes a proper purification process to eliminate external and internal impurities, thereby enhancing its potency. Therefore, thorough purification is critical to avoid any adverse effects on human health. Various authors have described different purification methods for *Shilajeet*, all aimed at ensuring a pure substance suitable for human consumption. Although Charaka does not specifically detail the purification methods for *Shilajeet*, he does reference the impregnated liquid and its dosage, emphasizing the importance of a well-refined product for effective therapeutic use.

It is noted that *Shilajeet* should undergo impregnation in the decoction of various medicinal preparations that are beneficial for *Vata*, *Pitta*, and *Kapha* disorders, depending on specific requirements. For instance, when addressing *Vata*-related ailments, it is recommended that *Shilajeet* be treated using a decoction composed of *Vata*-reducing herbs. This drug must undergo seven cycles of impregnation over a span of seven days, as described in Charaka Chikitsa (1-3/51). However, the commentary known as Vidhyotani Tika emphasizes the necessity of purifying *Shilajeet*. Vagbhatta adheres to Charaka's

principles, while Sushruta discusses purification techniques utilizing *Salasaradi Gana* drugs.

In *Rasarnava*, purification methods are outlined, indicating that the drug should be boiled with substances such as *kshara*, *amla varga*, *gomutra*, or *ghrita*. Additionally, purification may also be performed in two distinct manners using *ardraka svarasa*, though a specific procedure for this method is not provided (Rasarnava 7/21). The purification processes are similarly documented in *Rasendra Sara Sangraha* and *Rasa Ratna Samucchaya*, highlighting the sequential mixing of the drug with cow's milk, *triphala* decoction, and the expressed juice of *Eclipta alba* in an iron container, each for one day (RSS 1/242, RSS 2/110, AP 4/121).

Ayurveda Prakasha outlines a similar purification method with slight variations. The *Surya tapi* purification method is also referenced in both *Rasa Ratna Samucchaya* and *Ayurveda Prakasha* (RSS 1/242, AP 4/112-117). *Ayurveda Prakasha* provides a thorough discussion on the purification of *Shilajeet*. Initially, to address external contaminants, the drug should be washed with plain water. To eliminate internal impurities, it is advised to triturate the drug with a decoction of *Neem*, *Guduchi*, and *Indrayava*, specifically in an iron container, up to seven times utilizing each decoction (AP 4/108).

In the text "*Rasa Tarangini*," the author provides a comprehensive description of the purification process of *Shilajeet*, detailing not only the conditions necessary for purification but also the specific technique for its extraction, which adheres to the *Suryatapi* method. This method employs hot water and *Triphala* decoction as solvents (RT 22/69 – 81).

The author of "*Rasendra Chudamani*" succinctly outlines the purification process of *Shilajeet* in a single shloka. According to this account, *Swedana* should be conducted

using a *Swedana Yantra* on *Shilajeet* that has been previously triturated with *kshara*, *amla*, and *guggulu* for a duration of one hour. The text "Basavarajiyam" similarly follows this purification concept (R. Chudamani 10/103, Bs.R. 25).

Moreover, ancient Rasacharyas have described the *shodhana* of *karpura Shilajeet*, which involves trituration with a decoction of cardamom followed by a drying process (RRS 2/118, R. Chudamani 10/109, Basavarajiyam 25th chapter, RP 45).

Several sources, including RSS, RT, R Chu, Basavarajeeyam, and RP, have delineated testing

Table showing the test of *Shilajeet* as per various Rasashastra texts

Becomes convex when put on fire	RRS, AP, RT, R.Chu, BSR, RP etc
Smokeless on burning	RS, RSS, AK, RT, etc.
Releases rays in water	RSS, AK, AP, RT etc.
Soluble in water	RS, AK, R. Chu et

RRS-Rasaratnasamucchaya, AK-Anand Kanda, RT-Rasatarangini, R.chu- Rasendra chudamani, RP- Rasa Paddhati, BBR- Bharatbhairatnakara, AP-Ayurved Prakash, RSS- Rasendrasangraha.

MARANA

The *Marana* process is generally not applicable to *Shilajeet*; however, certain texts have referenced its *Marana*. The author of the *Rasa Ratna Samucchaya* indicated that *Shilajeet* should be combined with *Gandhaka*, *Manahshila*, and *Hartala*, followed by triturating this mixture with lime juice. This composite is then subjected to incineration using the *gajaputa* method. In contrast, the *Ayurveda Prakasha* follows a similar approach as that outlined in the *Rasa Ratna Samucchaya*, albeit with a distinction in the incineration method, wherein *Ayurveda Prakasha* advocates for *kapota puta* instead of *Gajaputa* (RRS 2/113, AP 4/131).

SATWAPATANA

Shilajatu is subjected to levigation (*bhavana*) utilizing the *dravaka-varga* along with a specific vegetable acid. This mixture is then heated in a crucible using a strong coal fire, which is enhanced by the application of a bellow the *Satwa*. The resultant extract exhibits characteristics akin to iron. Following this process, it is imperative to incinerate the *Shilajatu* before its application in medicinal formulations, employing methods similar to those used for iron. (R.Chu-10/107).

PROPERTIES

The properties of *Shilajeet* can be classified into categories such as *Rasa*, *Guna*, *Virya*, *Vipaka*, and *Karma*. Texts, including the *Rasa Ratna Samucchaya*, assert that *Shilajeet* encompasses all properties associated with *rasa*, *uprasa*, *parada*, *ratna*, and *lauha* collectively.

techniques for determining the authenticity of *Shilajeet*. The following criteria are considered indicative of genuine *Shilajeet*

1. When exposed to flame, *Shilajeet* will stand upright and burn without producing smoke.
2. If pure *Shilajeet* is introduced into water via the tip of a thin, upright glass, it will descend slowly, dispersing like fiber.
3. Pure *Shilajeet* must possess the distinct aroma of cow urine.

1. **Colour:** Various texts concur that the color of *Swarna Shilajeet* resembles the red hue of *Japapushpa*. The *Rajata* variety is characterized by a pale or white color (*pandu varna*), while the *Tamra* variety exhibits a blue hue. The *lohaja* type is identified by its black color, similar to that of *Guggulu* (Ca.Chi.1-3/57-59, AK 1/215, RT 22/65-68).

2. **Rasa:** The majority of texts indicate that the *rasa* of *Swarna Shilajeet* is classified as *Madhura* and *Tikta*. Most authors have considered *Rajata Shilajeet* and *Tamra Shilajeet* to possess *Katu* and *Tikta rasa*, respectively. A consensus among authors suggests that *Loha Shilajeet* exhibits *Tikta* and *Lavana rasa*, whereas *Astanga Hridaya* categorizes it as *Katu rasa*. *Naga Shilajeet* is recognized for its *Tikta rasa*. *Vanga Shilajeet* is characterized by both *Katu* and *Tikta rasa*.

3. **Guna:** The *Guna* associated with various types of *Shilajeet* is detailed as follows

- *Swarna Shilajeet* – *Sheeta Guna*
- *Rajata Shilajeet* – *Sheeta Guna*
- *Tamra Shilajeet* – *Ushna Guna*
- *Loha Shilajeet* – *Sheeta Guna*
- *Naga Shilajeet* – *Ushna, Mridu Guna*
- *Vanga Shilajeet* – *Sandhra Guna*.

4. **Vipaka:** The varieties of *Swarna*, *Tamra*, *Loha*, and *Naga Shilajeet* are classified as *Katu Vipaka*, whereas the *Vipaka* of *Rajata Shilajeet* is identified as *Madhura*.

5. **Virya:** All authors recognize that *Swarna Shilajeet*, *Rajata Shilajeet*, and *Loha Shilajeet* possess *Sheeta Virya*. The *Tamra*, *Naga*, and *Vanga* varieties of *Shilajeet* are also believed to have *Sheeta Virya*. Furthermore, *Charaka*, *Astanga Hridaya*, *RRM*, and *RT* consider *Samanya Shilajeet* to display a range of *Natu Ushna* to *Sheeta* attributes, while the *Virya* of *Samanya Shilajeet* remains consistent with this classification.

KARMA

The pharmacological action of a drug constitutes its defining characteristic. The authors have categorized the therapeutic actions (karma) of various types of *Shilajeet* as follows

- *Swarna Shilajeet*: Exhibits *Rasayana* properties.
- *Rajata Shilajeet*: Functions as a remedy for *Panduroga*.
- *Tamra Shilajeet*: Demonstrates *Lekhana* effects.
- *Loha Shilajeet*: Exhibits both *Rasayana* and *Vrishya* properties.

ACTION ON DOSHAS

The effects of *Shilajeet* on the doshas are specified as follows

<i>Swarna Shilajeet</i>	Alleviates <i>Vata</i> and <i>Pitta doshas</i> .
<i>Rajata Shilajeet</i>	Mitigates <i>Kapha</i> and <i>Pitta doshas</i> , with exceptions including <i>Kapha-Vata</i> (as noted in BRRS), <i>Pitta</i> (as noted in RSS), and <i>Pitta-Vata</i> (as noted in RJN).
<i>Tamra Shilajeet</i>	Alleviates <i>Kapha dosha</i>
<i>Lauha Shilajeet</i>	Functions as a <i>Tridoshghna</i> agent.
<i>Sadharana Shilajeet</i>	Classified as <i>Kaphahara</i> (as noted in A.S; R.J.N) and possesses <i>Vatahara</i> properties (as noted in RT).

DOSE

According to Charaka, the appropriate dosage of *Shilajeet* is contingent upon the specific disease being treated and the patient's overall strength (*bala*). This principle is aligned with modern medical practices. Prior to administering any medication, careful consideration of these factors is imperative in order to determine the appropriate dosage. Charaka classifies the dosage of *Shilajeet* into three categories: *Uttama*, *Madhyama*, and *Avara*. For the *Uttama* classification, the dosage is one *pala* (approximately four tolas) over a duration of seven weeks. For the *Madhyama* classification, the dosage is ½ *pala* (approximately two tolas) for a period of three weeks, and for the *Avara* classification, the dosage is one *karsha* (approximately one tola).

In Sushruta the dose of *Shilajeet* is 100 *pala* for gaining *pushiti*, *bala*, *varna*, curing *madhumeha* and longevity up to 100 years (thousand *pala* for attaining the life upto one thousand years). In *prameha* chapter, *Vangasena* states that if *Shilajeet* is used in the quantity of 400 tolas during life *time* then man can enjoy a healthy life upto 100years and if he consumes 10 times more than the above dose then he can live upto 1000 years. *Rasarnava* is silent about the dosage. In *Rasa Tarangini* 22/87, commentary of RSS the dose of *Shilajeet* is from 2 to 8 *ratti* depending upon the factor like age, strength etc.

ANUPANA

The role of vehicle in the administration of drug. Vehicle is described as *anupana* of the medicine. Generally the liquid substances and semi liquid substances are described as vehicles. They may be of similar quality of the medicine or of the dissimilar type. The aim of the vehicle is

1. To accelerate the action of the medicine.
2. To eliminate the bad or side effect of the medicine.
3. To spread the medicinal properties in the whole body.

Shilajeet is given by mouth. This is soluble in the secretion of gastro intestinal tract and after absorption eliminated through urine and faeces. *Shilajeet* contains *katu Tikta kashaya* and *ushna* properties. If it is not administered with any vehicle, causes irritation in the stomach. So this is administered with milk, fruit juice etc.

Though the ancient acharyas believe that the *anupana* should be given as per the factors like *dosha*, *bala*, *kala* quantity and quantity of the drug etc. but the textbooks like *Rasa Tarangini* has given a detailed list of almost 20 *anupana* which is given along with *Shilajeet* under different conditions (RT 22/ 88-109) which are tabulated below

S. No	Anupana	Disease
1	Honey	Mutrakriccha
2	Dashmula Kwatha+ Sugar	Asthilika , vata Basti
3	Varunadi Kwatha	Mutraghata and Ashmari
4	Guduchi Kwatha	Mutraghata and Mutrakriccha
5	Sugar+Camphor	Mutatita, Mutra Jathar
6	Gokshura Kwatha	Mutrakriccha
7	Kakolydai gana	Klaibya
8	Lauha bhasma, Svarna makshika bhasma Ghee, Haritaki, Vidanga	Rajayakshma
9	Viratarvadi gana kvatha	Mutrakriccha
10	Sugar+Milk	Pain due to Prameha
11	Guggulu+Sunthi+Pippali+ Gomutra	Uruh stambha
12	Lauha + Svarna makshika bhasma	Rakta vridhhi
13	Arjuna kvatha for 2 months	Hrid roga

14	<i>Agnimantha svarasa for 2 months.</i>	<i>Sthaulya</i>
15	<i>Bhavana with Salasaradi gana kvatha for 21 days and use with same decoction for 2 months</i>	<i>Madhumeha Asmari Mutrasarkara</i>
16	<i>Pippali, Pashanabhed</i>	<i>Prameha</i>
17	<i>Ela churna + washings of rice</i>	<i>Mutraghata, Mutrakricchra</i>
18	<i>Kapoor (Ext. Appl.)</i>	<i>Wounds / Bruise</i>
19	<i>Haridra churna</i>	<i>Kumbha kamala</i>
20	<i>Lauha + Svarna bhasma bhavana with Sarjaka kvatha (Iratti).</i>	<i>Masurika Jvara etc.</i>

EFFECTS OF IMPURE SHILAJATU CONSUMPTION

The ingestion of improperly purified *Shilajatu* may result in adverse health effects, including burning sensations, syncope, dizziness, hemorrhage, weight loss, decreased appetite, and constipation.

ANTIDOTE FOR SHILAJATU TOXICITY

The conditions arising from the use of impure *Shilajatu* can be alleviated by administering black pepper (Marich) in doses of one-fourth of a tola per day, combined with ghee, for a duration of seven days.

PREPARATION OF PURIFIED SHILAJATU (SATWAPATANA)

Shilajatu undergoes a process of levigation (Bhavana) with the *Dravaka varga* and certain vegetable acids, followed by heating in a crucible using a vigorous coal fire, which is enhanced with the aid of a bellows. The extracted essence, exhibiting an iron-like appearance, should then be incinerated and utilized in medicinal formulations in a manner akin to iron.

CONTRAINDICATIONS

While utilizing *shilajatu*, it is imperative to avoid the consumption of fried foods, roasted items (with or without oil), as well as sour, fermented, and heavy-to-digest foods. Individuals taking *shilajatu* should refrain from consuming *kulattha*, as it possesses corrosive properties that can negate the beneficial effects of *shilajatu* on the human body. Furthermore, individuals using *shilajatu* should avoid engaging in physical exertion, exposure to sunlight, wind, and other stressors that may affect mental well-being. It is also advised to steer clear of heavy foods and those that may cause bodily inflammation, particularly those that are sour, pungent, or fried, which may induce a burning sensation in the gastrointestinal tract.

DISCUSSION

As evidenced by various *samhitas* and an array of Rasashastra texts, *shilajatu* exhibits a multitude of beneficial qualities, such as its efficacy in addressing conditions like *Kustha*, *Vataroga*, and *Jwara*. Moreover, it plays a role in enhancing digestion (Dipan) and metabolic processes (*Pachan*), and it is associated with osteoporosis treatment, support during pregnancy for infertile women, strength enhancement, as well as anti-inflammatory, antitumor, and immunomodulatory properties. The influence of *shilajatu* extends to the

endocrine, nervous, and cardiopulmonary systems. Current research suggests its potential in managing arthritis, musculoskeletal disorders, and hypertension. While the effects of *shilajatu* on the immune system, central nervous system, hemopoietic system, and promotion of general growth indicate a need for further investigation, there remains insufficient evidence to establish a robust scientific framework for definitive therapeutic applications.

CONCLUSION

Shilajatu is a humus-rich substance with a blackish-brown hue and a broad spectrum of indications, serving as a potent tonic. Its origin remains a topic of scholarly debate; however, numerous researchers assert that *shilajatu* exuding from mountainous rocks is primarily derived from a vegetative source. It is characterized by neither sourness nor astringency, although it may develop a pungent taste upon digestion in the stomach. The term *shilajatu* translates to "conqueror of mountains and destroyer of weakness" in Sanskrit. In the ancient text Charaka, it is lauded as a substance for which "there is hardly any curable disease that cannot be cured." Traditionally, *shilajatu* is also regarded as a vitality enhancer, a remedy for diabetes, and is utilized in the Ayurvedic medicine system of India for various health conditions.

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