

**SHILAJIT: A WONDER DRUG OF AYURVEDA****\*Pravin C. Aladi and Sunayana R. Vikhe**

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Article Received on 08/02/2022

Article Revised on 01/03/2022

Article Accepted on 22/03/2022

**ABSTRACT**

Shilajit is one of the Maharasa (classified drug) mentioned in classical texts. The first reference of Shilajit in classified text Charaka Samhita states that "metals like gold and others present in the rocks which receive heat and exudate is called Shilajit ". It is most important drug of Ayurveda and Folk medicine system. Shilajit is a sticky exudate from rock layers in high altitude zones of mountains, particularly in the rocks of Himalayas. It is formed by organic and plant compounds that have been compressed by layers of rock and slow decomposition of plants over centuries. As a result of a high temperature and pressure, the compounds can change into Shilajit. When layers of the material resurface, the sun's heat on the mountain slopes can cause material to seep out of rock cracks. It can be collected. The composition of Shilajit largely depends on the type of plants associated with the rocks. Shilajit is pale brown to blakish brown in color and bitter in taste and it's smell resembles cow's stale urine. In Ayurvedic texts, it is called as Shilajatu or Silajatu but is commonly known as Shilajit. Its sanskrit meaning is "conqueror of mountains and destroyer of weakness". Depending on abundance of metals present in the rocks, it has been classified by the texts into six types namely, Suvarna (gold), Rajat (silver), Tamra (copper), Lauha (iron), Naag (lead) and Vanga (tin). The Loha variety is commonly found and used therapeutically. The constituents present in Shilajit are mainly fulvic acid, dibenzo- $\alpha$ - pyrones, humic acids, humins together with fatty acids, triterpenes, aromatic carboxylic acids, phytophenols and many other phytochemicals. The primary component of Shilajit is fulvic acid which contribute to cognitive health. It has been used as rejuvenator and adaptogen for thousands of years as a part of traditional system of medicine in a number of countries. Many therapeutic properties are attributed due to presence of various compounds present in Shilajit which have been verified by modern scientific evaluation. It has been proved that Shilajit is truly a panacea of traditional medicine. The present article highlights the Ayurvedic description, chemical constituents and biological evaluation of Shilajit.

**KEYWORDS:** Shilajit, uses, physical properties, purification, chemical components, phytochemical screening.**INTRODUCTION**

The word Shilajit is composed of two parts "Shila" means rock and "jit" means having won. So its literary meaning is "conqueror of mountains". Its Sanskrit meaning is "Conqueror of mountains and destroyer of weakness. Shilajit is considered as a venerable ancient medicinal practice. It is mainly found in Himalaya hills from Nepal to Kashmir Afghanistan, Russia, India, Bhutan, Japan, Tibet, and China. There are essentially two major types of shilajit viz., karpura shilajit and gomuthira shilajit. The latter is further classified into four lesser types viz., savrana shilajit, tamra shilajit, rajat shilajit and lauha shilajit.<sup>[1-4,7-9]</sup>

The discovery of power of Shilajit is said to have been made by Himalayan villagers. They began to consume it and reported a broad spectrum of improvements in health and as powerful tonic. It states in Charaka Samhita "There is no curable disease in the universe which is not

effectively curable by Shilajit, when administered at the appropriate time, adopting the prescribed method".<sup>[1]</sup> Shilajit is a herbo-mineral drug, which oozes out from a special type of mountain rocks in the peak summer months. It is found at high altitudes ranging from 1000 to 5000 meters.<sup>[5-6]</sup>

Shilajit has been used for thousands of years in ayurvedic system of medicine for various diseases.

It has been ascribed a number of pharmacological activities and has been used for ages as a rejuvenator and treatment of a number of disease condition. Modern scientific research has systematically validated a number of properties of Shilajit used in Indian medicine. Shilajit has been used for thousands of years in Ayurvedic system of medicine, extensively for a variety of diseases. It has been in extensive use in the preparation of a number of medicines and their utility has been most dependable

because of the presence of many biologically active chemical constituents.<sup>[7-9]</sup>

### Uses

Shilajit is most important drug for many diseases. It was used as a drug in prehistoric periods. Shilajit acts an agent which enhances the property of other drugs. According to Ayurveda, Shilajit arrests the process of ageing and produces rejuvenation which are of two important aspects of an Ayurvedic rasayana. It is prescribed to treat fractures, osteoarthritis, spondylolysis, chronic bronchitis, nervous disorders, epilepsy, anemia, angina, jaundice, menorrhagia and eczema. It has also been ascribed as a potent aphrodisiac property. It is useful for treating kidney stones, oedema, piles, internal antiseptic, adiposity, to reduce fat and anorexia. Traditionally, Shilajit is consumed by people from the north of India and Nepal and children usually take it with milk in their breakfast. The Sherpa claim to have Shilajit as a part of their diet, they constitute a population of strong men with very high level of healthy longevity. The traditional uses include its action in genitourinary disorders, enlarged spleen, epilepsy and hemorrhoids. Shilajit is given alongwith milk to treat diabetes. It is used for applications of tongue and cheeks as a paint, prepared by mixing Shilajit in hot water. It is also instilled as nasal drops and ear drops.<sup>[11,12,13]</sup>

### Physical Properties<sup>[15-17]</sup>

Shilajit is mainly found in mountain region on the earth. It have similar physical property and qualitative chemical composition but vary percentage ration of components.properties like solubility,PH.are vitle and mandatory test for standardisation

Solubility in water 30-50%

PH of 1% Aqueous solution of Shiljit

In India 6.2

In Nepal 7.5

In Pakistan 6.8

In Russia 8.2

Shilajit is sticky material with a shiny and polished surface easily soluble in water, alcohol and acetone.

The studies reveal that only about 60% of the raw material is soluble in water. Shilajit samples did not soften, at ambient temperatures but remained hard and brittle so that it was difficult to cut off small pieces.

Shilajit predominantly consists of organic matter and the total mass loss in air amounts to 67.6%. In an inert atmosphere a completely different behavior is observed.

Physico-chemical properties<sup>[15-17]</sup>

Loss on Drying 8.04 %

Ash value 18.76 %

Acid Insoluble ash 10.57 %

Water soluble ash 84.66 %

### Purification

Shilajit being a natural exudation from rocks containing a large amount of contaminants like rock pieces, heavy metal ions, vegetable compounds, reactive free radicals, toxins and soil particles etc, which cause illness. Hence it is necessary to purify the Shilajit before using it for therapeutic purpose. Shilajit is purified as per classical methods, in decoction, with Triphala (powder of three medicinal plant fruits namely: Embelica officinalis, Terminalia chebula, Terminalia bellerica) and expressed juice of Bhringraja (Eclipta alba) in an iron container successively for one day each. It may also be purified with by mixing Shilajit in water/cow milk.<sup>[18,19]</sup>

### Chemical Components<sup>[11,15,20]</sup>

Sr.NO.	Components	Percentage
1	Humic acid	80-85%
2	Organic mass & non humic acid	15-20%
3	Humidity	14-20%
4	Minerals	18-20%
5	Proteins	13-17%
6	Lipids	4-4.5%
7	Steroid	3.3-6.5%
8	Nitrogen free compounds	18-20%
9	Carbohydrates	1.5-2.0%
10	Alkloids, amino acids	0.5-0.8%
11	Other Compound	0.5%

Determination of heavy metals and minerals was carried out which gave the presence of Fe, Al, Zn, Cr, Mn, Mg, Co, Pb, K and Ca. The percentage of these metals are very minimal. amount which are permissiible level as prescribed by World Health Organisation (WHO) and not associated with health effects.

### Phytochemical Screening

Sr.no.	Test	Observation
1	Test for Alkloids a) Dragondorff's test b) Mayers test c) Wagner test	+
2	Test for Steroids a) Salkowski test b) Liebermann-burchard test	+
3	Test for glycoside a) For anthraquinone glycoside (Borntrager test) b) For cardiac glycoside (keller-killiani test)	+
4	Test for reducing sugar a) Fehlings test	+

### DISCUSSION

In the above study show that the shilajit is very usefull in various disease and show the long term effect in ayurveda.due to various chemical components like havy

metals. The percentage of these metals are very minimal amount which are permissible level as prescribed by World Health Organisation (WHO) and not associated with health effects.

The hypoglycemic effect of shilajit is higher than metformin but combination of metformin and shilajit reduce the blood glucose level.

Shilajit, a herbo-mineral preparation can offer a new and promising approach in the long-term management of maturity onset diabetes mellitus, because of its multifaceted action. Since it can produce a better glycemic control along with improvement in the lipid profile in animals, it is worthwhile to try shilajit either as monotherapy or in combination with other antidiabetic agents clinically.

### CONCLUSION

In conclusion, the shilajit is naturally occurring mineral it is widely used in an Indigenous system of medicine for the cure of variety of diseases and to accelerate the process of rejuvenation. It is found in mountain region it contains 85 minerals.

The present study describes on shilajit highlighting the uses, physical properties, phytochemical screening, purification, chemical components.

Apart from various therapeutic effects it is need of the day that further research be undertaken based on modern scientific methods. The presented data will be useful for further studies.

### ACKNOWLEDGEMENTS

Authors thankfully acknowledge the facilities provided by the Department of pharmacognosy, pravara rural college of pharmacy pravara nagar.

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