

**Research Article****Mummy (Shilajit) In Traditional Persian Medicine****Masood Moghadari<sup>1</sup>, Mozafar Rezvanipoor<sup>1</sup>, Mitra Mehrabani<sup>2</sup>,****Mehdi AhmadiNegad<sup>3</sup> and Haleh Tajadini<sup>1\*</sup>**<sup>1</sup>Neuroscience Research Center, Institute of Neuropharmacology,  
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Mobile: 989131972312 Tel: 03432102020**ABSTRACT:****Introduction:** Mummy (Shilajit) is one of the oldest medicines used in Iran. Mummy has been used for a wide spectrum of diseases during several years. we aimed to review therapeutic uses of Mummy in Traditional Persian Medicine (TPM) texts.**Method:** In this library study, an important text books of traditional medicine including The Ghanoon fi teband valid databases were searched. All issues related to mummy were gathered and classified.**Results:** In recent studies, the beneficial effects of Mummy in the treatment of peptic ulcer, pain relief have been investigated. According to traditional medicine sources, it has several beneficial effects in pain relief, bone fractures, physical refreshing, increasing sexual function.**Discussion:** According to TPM texts, Mummy has positive effects on the treatment of some Diseases. Considering these properties emphasized on traditional medicine sources, further studies on this valid substance are required.**Keywords:** Shilajit, Traditional Persian Medicine, Mummy**INTRODUCTION**

Mummy (Shilajit) is a Greek word means Hafez-ol-ajsad (1) and is equivalent to Mummy (Shilajit) in Persian (1), Aragh-ol-jebal in Arabic (2), Shilajit in Hindi (3), Myemu and mumie in Russia, Asphalt. mineral pitch in English (4) and Mumie. Salhumin in German (5) (Image 1). Shilajit is one of the oldest Iranian medicines and there is controversial information about its origin in the nature (3,6). Some know its origin in a beach named Bahirat-ol-yahood and a place called Kofra in ancient time. It is a hard reddish purple substance comes from sea to beach (2). Some traditional healers believe that its origin is some medicinal plants remained between cracks layers for a long time and flow out of the cracks following fermentation (7). According to the Traditional Persian

Medicine, the best kind of mummy is located in the mountains of Darab in Fars Province (3) (Image 2). Some others believe that this semi-solid brown substance is the result of oxidation of oil hydrocarbons (5) between cracks of some mountains (3). The best quality type is a black, smooth, shiny and soft substance without bad odor mixed with trash (3). In addition to hydrocarbon, it has Oxygen, Nitrogen and sometimes Sulfur in its compound (7). By solving Mummy (Shilajit) in oil, a soft pasty substance is obtained that was placed on the skin of damaged parts in ancient times (8). It has been used for a wide spectrum of diseases for several years and in recent years, it has entered human and animal laboratory systems. Different studies have shown that Shilajit is a

strong anti-oxidative, anti-inflammatory, anti-lipid and anabolic agent. Moreover, it improves the spermatogenesis process and physical function and decreases fatigue (9). In regard to several therapeutic effects of Mummy (Shilajit) mentioned in traditional medicine texts, we aimed to review these therapeutic properties in traditional medicine sources.

## METHOD

In this review and library research, the word Mummy (Shilajit) was searched in important text books of traditional medicine including *The Ghanoon fi teb*, *Kholasat-ol-hekma*, *Moalejate Aghili*, *Aazam* and *Makhzan-ol-adviyeh*, *Thohfeye Hakim momen* and *Resaleye Mummy*. Collected data were classified. Then, recent articles in PubMed, google scholar, IranDoc, IranMedex and SID databases were searched and findings of modern medicine scientists were compared with traditional medicine findings.

## RESULTS:

### Mummy (Shilajit) in modern studies

There are several studies about the effects and properties of Mummy (Shilajit) in new studies. Some of them are as follows.

Goel et al (1990) in a study on anti-ulcerogenic and anti-inflammatory effects of Shilajit have shown that oral administration of 100mg/kg Shilajit twice a day decreases gastric ulcer index and increases carbohydrate/protein ratio (10).

Bhattacharaya et al (1995) have studied the effects of Shilajit on superoxide dismutase of Langerhans islets in streptozotocin-induced diabetic mouse and found that administration of Shilajit increases superoxide dismutase leading to free radicals reduction (11).

In Acharya et al study (1998), analgesic effect of Shilajit (200mg) has been reported. Moreover, administration of 50-200mg Shilajit, twice a day caused significant dose-dependent decrease of peptic ulcer in mouse (12).

Al-Hamaidi et al (2003) have studied the safety of Shilajit in pregnant mice by administering 200mg/kg Shilajit for 90 days and found no side effects on heart, liver, kidney, blood cells, neurons and endocrine system (13).

Sharma et al (2003) have done a double-blind study about the effect of Shilajit on lipid levels. Subjects that had received 200mg Shilajit daily, showed significant decrease of serum cholesterol, VLDL, LDL and triglyceride and increase of superoxide dismutase, vitamins E and C in comparison to the placebo group (14).

In Tavakoli et al (2003) showed that mummies would reduce swelling and inflammation of wounds (15).

Chosal et al (2006) have suggested that anti-ulcerogenic effect of Shilajit is due to isolated folic acid and bi-phenols from mucosal cells of gastrointestinal system (16).

Rezvani-pour and Khatibi (2007) have studied the effects of mummy on rabbits with experimental fractures and found that mummy had beneficial effects on fracture healing (17).

Pravenn Sharma et al (2003) have done a study about the effect of Shilajit on blood chemistry. A significant reduction in Serum Triglycerides and cholesterol was seen. In this study Shilajit also improved antioxidant status of volunteers (18).

In Biswas et al (2009) study about the effect of Shilajit on sperm and ovum, 100mg Shilajit was given to 35 men with oligospermia for 90 days. Subjects showed significant increase (12.4%-17.4%) in sperm count and motility and significant decrease of semen malondialdehyde, testosterone increase (23.5%) and FSH increase (19).

Raju et al (2012) gave 250mg Shilajit twice a day and for 90 days to human volunteers and observed no effect on liver and kidney functions and vital signs (20).

Dehghan and Sharififaradoneh (2012) have done clinical trial about the effect of mummy on the healing of bone fractures. The results of this study revealed the mummy had beneficial effect on bone fracture healing and reduced complications (21).

### Mummy (Shilajit) in traditional medicine texts

According to traditional medicine texts, Mummy (Shilajit) is something similar to pitch come out of mountains' cracks and the best quality type is found in Darab/ Fars/ Iran Mountain. From the traditional medicine perspective, Mummy (Shilajit) is hot and dry

and its effect remains for 40 years (3). In traditional medicine texts, it has been mentioned as heart tonic, sexual tonic, exhilarative. One of the other uses of this mineral is in the treatment of gastric and urinary systems problems. The effectiveness of Mummy (Shilajit) in healing wounds and fractures has been emphasized by traditional practitioners like Avicenna (3, 22). The efficacy of this valid substance in the treatment of tachycardia, abdomen distension, scorpion and snake bite and pain relief as well as its amazing effects in healing wounds and fractures, even infectious ones, have been mentioned (23). According to "The Canon of Medicine", Mummy (Shilajit) in addition to the mentioned effects is effective in chronic headaches, dizziness and epilepsy. Moreover, placing its mixture with red rose oil in the infected ear is suggested (22).

In whole, the beneficial effects of Mummy (Shilajit) in different body organs based on Iranian Traditional Medicine texts can be summarized as follows:

1. Head, ear and nose diseases: it has been claimed that Mummy has unique significant tonic effects on neurotic system (6) and is effective in the treatment of headache, especially the chronic type (6), sinusitis and catarrh (22) and toothache (23).
2. Heart & lung diseases: it relieves chronic cough (21), hemoptysis (1), tachycardia (1), dyspnea (24), ill thoughts and sadness. Mummy nerves the spirit, brings courage and relieves tachycardia (25).
3. Kidney problems: eating and sitting in sodden Mummy (Shilajit) is effective in relief of kidney pain (23) and in difficult urination (25).
4. Digestive problems: it has been named as gastric tonic and pain reliever (1). Eating two pills of Mummy solved in cow oil once a week has been prescribed for those with digestive problems such as gastric pain or ulcer and hemorrhoid (26).
5. Joints problems: it relieves joint pain (27). Its mixture with beard floor and as an ointment is beneficial for joint pain and gout. In fractures and contusion, using oral or local Mummy is useful. One of its beneficial applications is in the treatment of intervertebral disk herniation (23). In bone fractures, bone resetting and applying ointment on it as well as oral consumption is very effective in bone healing. Consumption of Mummy causes rapid recovery of organ dislocations too (26).
6. Body organs: it strengthens body and causes delightfulness and works as a tonic for heart, liver and brain (27).
7. Genital organs: it is beneficial for ulcers due to gonorrhoea (28) and works as a sexual tonic (25).

Other uses of Mummy are topical use for the treatment of leprosy (1), oral use in some types of fevers (1) and infectious wounds (24). Moreover, Mummy smoke is beneficial in warding off snake, scorpion and biting (23).

## DISCUSSION & CONCLUSION

Traditional medicine texts provide several therapeutic effects for Mummy (Shilajit) including beneficial effects on neurotic system, digestive system, heart and lung, kidney, joints and sexual function. Most of modern studies about Mummy have been performed on rat (11, 13, 18), while human studies are limited (19).

Investigations about Mummy (Shilajit) show its various properties, including: antioxidant (29,30); cognitive and memory enhancer (31); antidiabetic properties (32); antiallergic properties and immunomodulator (33,34); anti-inflammatory (35); analgesic (30); neuroprotective agent against cognitive disorders (36).

Comparison of traditional and modern studies show that many effects of Mummy such as sperm count increase, neuroprotective effects, analgesic effects, wound healing, bone fracture healing and its effects in the treatment of peptic ulcer reported in modern studies (12, 15, 16, 17, 21) have been considered by traditional medicine practitioners too (1, 3, 23, 25-28). It has shown no side effects on heart, liver and brain in performed human studies (13, 20). Unfortunately Mummy (Shilajit) lacks systematic studies and it is expected that considering the evidenced from trials will be obtained in the near future. More widespread

studies on the properties of this mineral in various therapeutic fields are required.

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#### Author Contributions:

Masoud Moghaderi and Haleh Tajadini: Design of the study, Data Collection, and Mitra Mehrabani and Mozafar Rezvanipour and Mehdi Ahmadinegad Review and Edit the manuscript.

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#### Ethical Approval

This study did not warrant institutional review board review as no human subjects were involved.

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