

Therapeutic Effects of Roasted Lentil Flour from the Viewpoint of Iranian Islamic Resources: A Review

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Abstract

Background and Objectives: Savigh or the edible roasted flour has both remedial and nutritional applications. Despite the introduction of Savigh in the Iranian traditional medicine resources and particularly in Hadith books, this product has not been well-known yet. This review study aimed to investigate the therapeutic applications of lentil Savigh in Hadith books and Iranian traditional medicine in order to enhance the laboratory and clinical applications of this product.

Methods: For the purpose of the study, information related to lentil and its Savigh was collected from Hadith books, Iranian traditional medicine resources, and the English and Persian articles in the scientifically verified databases. Then, the importance and therapeutic properties of lentil Savigh were investigated.

Results: Lentil Savigh has a cold-dry temperament, produces black bile, and concentrates the blood. This product seems to be useful for the diseases caused by warmth or blood dilution, such as menorrhagia, thirst, blood excitation (Ghalayan), and the cases which require astringent properties, such as bleedings during pregnancy and postpartum hemorrhage.

Conclusion: According to the aforementioned therapeutic properties of lentil Savigh, as well as its accessibility and lower cost, this product seems to be useful for the treatment of several medical conditions. Moreover, it can be applied as a complementary treatment.

Keywords: Savigh, Menorrhagia, Lens-shaped seeds, Iranian traditional medicine, Complementary therapies.

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Introduction

Savigh is called Pest in Persian and Ghavoot in Turkish. Savigh is a kind of flour that is made of different roasted edible grains (1). The properties of Savigh are similar to those of the grains it is made of. For example, lentil Savigh is the flour produced from roasted lentil (2). The types and properties of Savigh have been mentioned in the Iranian traditional medicine resources and Hadith books. Iranian traditional medicine is one of the oldest and the most valuable complementary medicine that has been proved to be efficient over time.

Iranian traditional medicine with a glorious history was the best schools of medicine in medieval times that has been consigned to oblivion since Qajar dynasty. Up to now, a lot of effort has been made to revive the

fundamentals and therapeutic methods of this medicine based on the experience of Iranian-Islamic medicine the accuracy of which has been confirmed in recent studies (3,4).

Based on the primary principles of the Iranian traditional medicine, the modification of nutritional status (use of foods to treat diseases) is the first stage of treatment, and pharmaceutical treatment and manual therapies, such as massage and cupping are applied next. Given the side effects of different medications, the use of food for the treatment of many diseases is of paramount importance. Lentil Savigh is used as a therapeutic agent given its astringent properties, in addition to its nutritional values. Furthermore, since this product is devoid of any side effects, it seems to be helpful to be used in the treatment of the diseases (5).

Moreover, the importance and therapeutic applications of different types of Savigh are clearly indicated in Ahadith (6). However, despite the accessibility, simple preparation, therapeutic properties, and different applications of Savigh as mentioned in both Hadith books and different Iranian traditional medicine texts, this product is not well-known. To the best of our knowledge, no study has investigated this subject yet. With this background in mind, the present study aimed to investigate the evidence on the therapeutic applications of lentil Savigh using Ahadith, Iranian traditional medicine and recent articles. This study recommends the use of this crop in laboratory studies and clinical trials.

Methods

To perform this narrative review; first, the findings related to Savigh, particularly lentil Savigh and lentil, were investigated in verified resources, including "Alhavi fi teb" (4th century), "Canon of Medicine" (5th century), "Ashamel fi sanaatettebiat" (5th century), "Almoojez fi teb" (7th century), "Tohfeh hakim momen" (11th century), "Makhzanol advieh" (12th century), "Tibbakbari" (12th century), "Kholasatolhekmata" (12th century), and "Exir-e-Azam" (13th century). Then, the information related to lentil and different types of Savighs was extracted from several Hadith books, such as "Beharolanvar", "Alkafi", "Almahasen", "Mostadrakolvasael", "Mostanbetolmasael", and "Daneshnameh Ahadise Pezeshki".

In addition, all Persian and English articles related to the subject of interest were obtained from various scientific databases, such as PubMed, Scopus, and Google Scholar using the following keywords: "Lentil", "Savigh lentil", and "Roasted lentil flour". No time limitation was considered in the search process.

Result

Savigh or the edible roasted flour has different types and is categorized into two parts:

1) The Savigh obtained from grains like wheat, malt, lentil, rice, chick pea.

2) The Savigh obtained from fruits like apple, pomegranate, oleaster, ziziphus, and pumpkin (1). To prepare different types of Savighs; first, the material that the Savigh is going to be made of is roasted so that it is neither raw nor burnt. Subsequently, it is washed by warm and cold water, and then dried and ground (2).

According to the Iranian traditional medicine, the temperament of Savigh is similar to the material it is made of, and the dry temperament also maintains its dominance in the flour properties. For instance, the Savighs made of cold temperament are used to treat warm diseases and fevers, particularly those that are related to stomach (2,7). Furthermore, washed Savigh maintains its cold temperament more than the unwashed one. On the other hand, all Savighs have astringent properties; therefore, they are used in diarrhea and the treatment of injuries requiring blood flow staunching (8).

As mentioned earlier, Savighs maintain their original material properties and benefits. These products have dominant astringent properties due to roasting the base material. However, in the Iranian traditional medicine, there is just a brief explanation regarding the therapeutic applications of Savigh. Therefore, it is required to perform more investigations on lentil for its properties. Lentil, scientifically known as *Lens Culinaris Medic*, is of different types and is made of lens-shaped seeds that are classified into four types with different subspecies. Researchers have investigated multiple genetically different species of lentil. This grain is usually grown in poor soils that are not suitable for cultivating other crops (9).

In the Iranian traditional medicine, lentil is divided into two types, namely desert and orchard. The desert-type lentil is smaller and bitter while the orchard-type lentil is larger and bigger. The best type of lentil is the white orchard that is cooked very soon and does not darken the water (10). The lentil has a mild and dry temperament; accordingly, some scientists consider it to have the second grade of coldness and dryness. In other words, lentil is medium in warmness and coldness; yet, it is also dry. Indeed, the membrane of this grain is slightly warm, and its membrane-free mass is slightly cold.

Table 1. Therapeutic effects of lentil Savigh

| Iranian traditional medicine resources | | | |
|---|---------------------------------------|---------------------|-----------|
| Therapeutic effect | Resources | Author | Reference |
| astringent | Alhavi fi teb | Razi | 12 |
| | Canon of Medicine | Avicenna | 5 |
| | Ashamel fi sanaatettebiat | Gharshi | 7, 13 |
| | Almoojez fi teb | Gharshi | 15 |
| | Tohfeh hakim momen | Hakimmomen | 1, 14 |
| Blood excitation (Ghalayan) alleviation | Makhzanoladvieh | Aghilikhorasani | 8, 10 |
| | Canon of Medicine | Avicenna | 5 |
| Causing blood concentration | Ashamel fi sanaatettebiat | Gharshi | 7, 13 |
| | Makhzanoladvieh | Aghilikhorasani | 8, 10 |
| | Alhavi fi teb | Razi | 12 |
| Urination reduction | Canon of Medicine | Avicenna | 5 |
| | Ashamel fi sanaatettebiat | Gharshi | 7, 13 |
| | Almoojez fi teb | Gharshi | 15 |
| | Tohfeh hakim momen | Hakimmomen | 1, 14 |
| | Makhzanoladvieh | Aghilikhorasani | 8, 10 |
| | Alhavi fi teb | Razi | 12 |
| | Canon of Medicine | Avicenna | 5 |
| Menstrual bleeding reduction | Ashamel fi sanaatettebiat | Gharshi | 7, 13 |
| | Almoojez fi teb | Gharshi | 15 |
| | Tohfeh hakim momen | Hakimmomen | 1, 14 |
| | Makhzanoladvieh | Aghilikhorasani | 8, 10 |
| | Alhavi fi teb | Razi | 12 |
| | Canon of Medicine | Avicenna | 5 |
| Diarrhea treatment | Alhavi fi teb | Razi | 12 |
| | Makhzanoladvieh | Aghilikhorasani | 8, 10 |
| Islamic Hadith resources | | | |
| Blood excitation (Ghalayan) alleviation | Alkafi | Koleini | 27 |
| | Beharolanvar | Majlesi | 6 |
| | Daneshnameh Ahadise Pezeshki | Mohammadi Reyshahri | 25 |
| Menstrual bleeding reduction | Alkafi | Koleini | 27 |
| | Beharolanvar | Majlesi | 6 |
| | Daneshnameh Ahadise Pezeshki | Mohammadi Reyshahri | 25 |
| Thirst elimination | Alkafi | Koleini | 27 |
| | Beharolanvar | Majlesi | 6 |
| | Daneshnameh Ahadise Pezeshki | Mohammadi Reyshahri | 25 |
| Stomach strengthening Stomachache improvement | Alkafi | Koleini | 27 |
| | Beharolanvar | Majlesi | 6 |
| | Daneshnameh Ahadise Pezeshki | Mohammadi Reyshahri | 25 |
| Bile alleviation | Alkafi | Koleini | 27 |
| | Beharolanvar | Majlesi | 6 |
| | Daneshnameh Ahadise Pezeshki | Mohammadi Reyshahri | 25 |
| Heat reduction and cooling down the body | Alkafi | Koleini | 27 |
| | Beharolanvar | Majlesi | 6 |
| | Daneshnameh Ahadise Pezeshki | Mohammadi Reyshahri | 25 |
| Tender minding and easily crying | Almahasen | Barghi | 26 |
| | MostadrakolvasaelvaM ostanbetolmasael | Noori | 28 |
| | Alkafi | Koleini | 27 |
| | Beharolanvar | Majlesi | 6 |
| | Daneshnameh Ahadise Pezeshki | Mohammadi Reyshahri | 25 |

The water of the cooked lentil membrane is laxative and purgative, which stimulates the intestinal mucosa and prepares them for excretion from the organ surface. Furthermore, its boiled membrane-free mass is astringent. Therefore, lentil has a combination of astringent and cleansing properties (10-12). A lot of properties have been mentioned for lentil in resources. Lentil is flatulent and heavy and produces Sodavi (black bile) blood and Soda (black bile). It is constrictive, alleviates blood excitation, and causes the blood to concentrate, thereby reducing urination menstrual bleeding.

The drying effect of lentil inhibits urination and menstruation, particularly when it is used without membrane. Lentil membrane-free mass has a stronger astringent and cooling effect, which consequently cools down the body, constricts the blood vessels, concentrates the menstruation blood, and consequently makes the blood circulation difficult in the uterine vessels and ducts (12-14). Lentil is a type of bean with both nutritional and pharmaceutical properties. It has mild nature, produces Soda (black bile), alleviates blood boiling, thickens the blood, and prevents its flow in narrow vessels (12,14,15). In the Iranian traditional medicine books, lentil was used to treat many diseases that are usually warm in nature (10).

Today, lentil plays a critical role in human dietaries, particularly in developing countries. Lentil is used as a complete food in more than 100 countries (18-16). This bean contains noticeable amounts of micro and macro nutrients, proteins, soluble and insoluble fibers, probiotic carbohydrate, minerals (e.g., calcium, iron, magnesium, potassium, phosphorus, sodium, zinc, copper, manganese, and selenium), high antioxidant activity, phytoestrogen, thiamin, riboflavin, folate, niacin, pantothenic acid, pyridoxine, β carotene, vitamins (e.g., A, E, and K), and herbal nutrition (e.g., flavonoid, tannin, and phytic acid) (16-18). Moreover, according to a number of studies, lentil absorbs iron more than other beans (19).

Lentil is widely used all over the world; for instance, it is used in semisolid soup in Southeast Asia. In some cases, it is fried or used as flour for the preparation of bread and

cake. Furthermore, lentil is consumed with soup in America and Europe (16,18,20). There is evidence confirming the effect of lentil on the prevention and treatment of some diseases. In this regard, lentil reduces the risk of cardiovascular diseases, lowers low-density lipoprotein in hypercholesterolemia (21), increases iron level in anemia (22), and controls type II diabetes mellitus (16,23).

Furthermore, some studies showed that lentil was useful in the prevention of different types of cancers, such as prostate, lung, colorectal, bladder, and gastrointestinal, due to containing noticeable amounts of selenium (24). In addition to the Iranian traditional medicine books, Hadith books have also pointed to various types of Savighs and their therapeutic effects. In this regard, a chapter of "Beharolanvar" book (Babol-Asooghe and its types) is dedicated to this subject.

There are a lot of Hadiths regarding the properties of Savigh, some of which are as follows: Savigh has been sent from the sky through afflatus. Savigh is prophets' food (25). Savigh is very bounteous. If somebody eats it while being full, it makes the food digested, and if someone eats it while being hungry, it makes him/her full (26,27). Savigh is a good food while you are at home or on the trip. Savigh is one of the best foods.

In other Hadith books, the importance of lentil is defined as follows: Savigh is the best food for the ones who fast (28). Savigh makes the muscles grow and the bones strong. The one who eats Savigh for 40 days will be stronger (26). Savigh completely removes phlegm from the stomach and dispels 70 kinds of diseases (27). There are also some Hadiths about a special kind of Savigh. For instance, in a Hadith, it was stated that there is nothing better than apple Savigh for the treatment of poisoning. The use of apple Savigh has been also advised for the management of epistaxis (27).

Table 1 presents the therapeutic effects of lentil Savigh. Lentil Savigh eliminates thirst and improves the stomachache. It accounts for the treatment of 70 diseases. It inhibits yellow bile and cools down the internal organs (27). Lentil Savigh reduces the blood excitation and

cools down the heat (6). In a study, the use of lentil Savigh was reported to improve the condition of a woman who was dying of high amount of menstrual bleeding (27). According to Hadiths, the use of lentil is advised because 70 prophets have blessed it. Moreover, lentil is claimed to be the cause of being tender-minded and results in easily crying (6,25).

Discussion

According to reviewed literature, lentil has a cold- and dry-oriented temperament. Accordingly, lentil Savigh that is obtained from the roasted lentil has similar properties and benefits with more dryness and astringent properties. Based on the information obtained from different resources, this grain can be used for the treatment of different diseases caused by blood warmness. Lentil has been frequently advised for the treatment of menorrhagia in different books. Since lentil has a relatively cold temperament, it can dry the body, and therefore reduces the bleeding (29,30).

Moreover, lentil Savigh causes the blood to concentrate and reduces the menstrual bleeding. Furthermore, given its cold nature, it cools down the menstrual bleeding and reduces the blood flow to the uterus and vessels, thereby decreasing menstrual bleeding (10). On the other hand, according to the recent studies, lentil has considerable amounts of vitamin K and tannin both of which can control the amount of bleeding (31,32).

It is worth mentioning that lentil is one of the food products that should be cautiously used in the people using warfarin (33). Therefore, considering the aforementioned coagulation effects and the Ahadith data regarding the effect of lentil Savigh on menstrual bleeding, it seems that this product can be used as a pharmaceutical complementary treatment for the bleedings caused by the thin and warm blood, such as menstrual bleeding. It can also be used in the patients suffering from postpartum hemorrhage or spotting during pregnancy.

Lentil Savigh can be also used to quench the thirst. In the Iranian traditional medicine, thirst is divided into two types, namely true thirst and false thirst. The former is when the organs

of the body need moisture, and the latter is the need for removing the thick and dense material. There are three reasons for the true thirst, including the abnormal temperament of the different organs, abnormal temperament of the whole body, and external causes.

In abnormal temperaments, thirst often occurs due to the organ warmness, dryness, or both, such as the stomach warmness and dryness, lung heat, heart and liver warmness, bilious warm material or acute swelling, and bilious fevers. The external causes of thirst include unsuitable nutrition and staying in warm weather (29,30,34). The thirst caused by abnormal temperament is often happened due to warmness. Therefore, the benefit of lentil Savigh considering its cold-dry temperament is justified, and it can be used in the treatment of such thirst. Moreover, due to having cleansing properties, this product stimulates the intestinal mucosa and prepares them for excretion. It can also be useful for removing the causes of the false thirst (35).

Lentil Savigh is effective in the alleviation of the blood excitation. Ghalayan or blood excitation is caused by warmness or warming factors of blood, such as over-happiness and anger. Drugs with cold and dry nature are used to treat Ghalayan. Since lentil Savigh has a relative coldness and the ability to concentrate the blood, it decreases Ghalayan, thereby inhibiting anger.

On the other hand, Ghalayan reduction can decrease Soda production. Because Soda increases in the blood which has Ghalayan, and this can darken its color. Reduction of Ghalayan and Soda production purifies the blood and brighten its spirit. Therefore, it causes happiness and controls Soda because of Soda reduction in blood and spirit (36). Therefore, this could be the reason for the advice on lentil consumption for tender minding and tear releasing.

Tender-mindedness that is the opposite of harshness indicates kindness and is a sign of spirituality. On the other hand, harshness is a symptom of warm heart; therefore, the consumption of lentil causes tender minding by lowering the warm nature of the body (37). Stomach strengthening is another benefit that

has been mentioned for lentil. Strength has different meanings in the Iranian traditional medicine, such as temperament balancing, blood, and spirit increasing.

Since one of the benefits of blood humor (part of blood) is feeding organs, one can use mild foods increasing blood humor to strengthen the power. One of the other meanings of strength is the astringent effect which strengthens the organ. Cleansing the organ from waste material can also strengthen the organ. Lentil Savigh can strengthen the stomach due to its property of cleansing the stomach of the phlegm (35), and inhibiting bile (because of its cold nature), as well as its astringent effect.

Conclusion

The findings of the study were indicative of the positive properties and benefits of lentil Savigh and its therapeutic effect. As indicated in the reviewed resources, this product has fewer side effects in comparison with medications. Besides, lentil Savigh is more accessible and cost-effective. Therefore, this product seems to be useful for the treatment of the aforementioned cases or complementary treatment. Since there are no clinical studies on this product, clinical trials are strongly recommended to investigate the efficacy of the treatment.

Conflict of interest

The author declares no conflict of interest.

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