

Improving the Symptoms of Chronic Allergic Rhinitis Based on Persian Medicine Measures and Pomegranate Paste: A Case Report

Running Title: Allergic Rhinitis and Pomegranate Paste

Mahdieh Azin¹, Ali Mohammad Madahian^{2*}

¹Physiology-Pharmacology Research Center, Research Institute on Basic Sciences, Department of Physiology and Pharmacology, School of Medicine, Rafsanjan University of Medical Sciences, Rafsanjan, Iran.

²Ali-Ibn Abi-Talib Hospital, Clinical Research Development Unit, Rafsanjan University of Medical Sciences, Rafsanjan, Iran.

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Corresponding author

Ali-Ibn Abi-Talib
Hospital, Imam Ali
Boulevard, Rafsanjan,
Iran.
Tel: +989132454575
E-mail
baniadam000@gmail.com

Abstract

About 10-25% of people worldwide suffer from allergic rhinitis. Due to reduced quality of life and work and educational productivity caused by allergic rhinitis, billions of dollars are spent annually due to minimized production. Although effective symptomatic treatments for this disease are available in conventional medicine, about 30% of patients use complementary medicine for their treatment to avoid the side effects of medications.

The present study reported a 40-year-old woman with a warm mizaj, referred to a health center of Rafsanjan University of Medical Sciences. Her main complaints were secondary nasal congestion and chronic allergic rhinitis. Her history showed symptoms of participatory gastric involvement and mild postnasal discharge. She also had a lot of imaging done for the polyp. The tests showed that she was prediabetic and controlled by walking. After completing the total nasal symptom score (TNSS) questionnaire and other questionnaires to determine the mizaj and demographic characteristics in the first treatment session, considering her symptoms and participatory gastric involvement, a possible diagnosis of nazleh¹ was proposed. Therefore, she was prescribed to change her lifestyle by some measures, avoid certain foods in her diet and eat one tablespoon of pomegranate paste daily after each meal. The TNSS questionnaire was completed, and the results obtained in the first month were compared with the results obtained in the second month. Finally, after two months of intervention, the score obtained from the questionnaire decreased significantly.

The use of Persian Medicine such as pomegranate paste and Persian Medicine actions were helpful in this case, significantly improving allergic rhinitis symptoms.

Keywords: Allergic rhinitis, Persian medicine, Pomegranate paste

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¹ A disease with stomach and nasopharyngeal tract involvement which can be the origin of many disorder from the perspective of PM

Introduction

Allergic rhinitis, the most common chronic non-communicable disease, affects about 10 to 20% of people worldwide, and its prevalence in children is increasing (1). Allergic rhinitis is currently diagnosed using taking a careful history and physical examination. Nasal polyps are the most common benign masses caused by the hyperplastic reaction of the mucosal glands to inflammation. In general, various factors such as allergies, infections, nasal deviation, and sinusitis lead to inflammation, edema, and the growth of this glandular structure (2-5). The most common cause of polyps is allergies, and nasal congestion is one of the most common complaints of patients. Due to the high recurrence rate of the disease, avoiding allergens can improve it in the early stages (6).

Antihistamines and corticosteroids are the most commonly prescribed drugs for allergic rhinitis (7); although they temporarily improve the symptoms of the disease, their long-term use is associated with various side effects (8). Due to the increasing tendency of people around the world to use complementary medicine and herbal drugs (9), the high prevalence of allergic rhinitis, as well as excessive use of anti-allergic and anti-inflammatory compounds to reduce the symptoms and associated costs (10), the use of effective herbal remedies as a supplement can be beneficial.

In Persian Medicine (PM), allergic rhinitis is considered a common cold (11). Depending on the symptoms, it is divided into two categories:

warm type with symptoms of burning, itching, and redness of the nose, and cold type with symptoms of colorless discharge without mucosal irritation (12). Knowing the mechanism of the common cold can contribute to its treatment. In summary, an important cause of the common cold is distemperament, which can lead to the production of irritants in the mucous membranes; this can be reduced by using food or medicine with opposite mizaj to improve the common cold (13).

The present study reported a 40-year-old woman with allergic rhinitis and the major complaint of nasal congestion.

Case report

The patient was a 40-year-old woman with a weight of 90 kg and a height of 183 cm who had allergic rhinitis for about 20 years. She was diagnosed as warm-mizaj (temperament) in evaluation. She was a person with fast movement and quick decisions; all kinds of hot foods and stimulants bothered her and she was more comfortable with cold ones.

Her main complaints were a runny nose and its other symptoms, nasal congestion, and poor sleep at night. She had visited the allergy clinic since she was 14 years old, and in her frequent visits there, according to the advice given to her, she avoided eating tomatoes, melons, and dust. Her medical history showed signs of discharge from the back of the throat. Gradually, the symptoms changed from a simple allergy to congestion and nasal polyps; it also worsened by headaches and dyspnea at night.

She had a history of lack of sleep and insomnia and could only sleep with sleeping pills. Her history showed that surgical removal of the polyp is not possible based on frequent imaging for nasal congestion because the polyp is located in the maxillary sinus. Tests showed that she was prediabetic with a vitamin D deficiency. It was also reported that she had constipation, irregular menstrual problems, ovarian cysts, and surgery to remove her gallbladder. She had a history of taking apo-citricizine, dexamethasone, and vitamin D and occasionally took Botox injections to improve nasal congestion, which later recurred. During the past year, the patient was able to control her pre-diabetes by walking regularly and also, to some extent, improve constipation by adding fiber to her diet.

The first treatment session started on Mar 2, 2021, by filling out the demographic information and the TNSS questionnaires. The initial score of the TNSS was obtained 29. The prescribed treatment measures were regular daily walks, early night sleep, relaxing medical breathing, overnight nasal irrigation with normal saline, consumption of a tablespoonful of pomegranate paste after each meal, using chicory and fumitory extracts once a day, using suitable fibers and flixweed seeds to solving abdominal problems, and avoiding different kind of foods, especially cold water, yogurt, and pickles simultaneously. Moreover, it is recommended that she was avoided excessive consumption of spices, fried foods, bile-producing foods, and industrial oils. Moreover, in addition to moisturizing, eliminating harmful substances, and preventing constipation, flixweed seeds were given to help her.

By consuming only one tablespoon of pomegranate paste and regularly avoiding pickles and cold water until the second session (three weeks later, on May 23, 2021), the patient's nasal congestion and runny nose problems were resolved. The patient was prescribed to continue the previous prescription for one month. In the third session and about 52 days after the first visit (one month after the previous visit on June 23, 2021), the TNSS questionnaire was refilled, and a score of 9 was obtained. The patient's symptoms improved significantly, and she was advised to have new imaging to determine the size of the polyp. Although previous imaging was unavailable and no-repeat imaging was performed, the patient remained recurrence-free after three months.

Discussion

In the Iranian Medicine texts, non-observance of the six principles of lifestyle (sete-e-zarourieh) can cause mizaj problems and lead to produce harmful substances in the body, and balance in the six principles (sete-e-zarourieh), namely physical activity, sleep, proper nutrition, avoiding excitement, and suitable excretion of abdominal waste material, make the body to solve these mizaj problems (13).

The important point from the PM view was a high probability of the presence of a phenomenon called nazleh, in which the symptoms can be aggravated due to dysfunction of the stomach. Symptoms such as discharge from the back of the throat, congestion, and inflammation², can be

² which are called insidious vapors in PM

prevented by observing the etiquette of eating, not eating mixed foods, avoiding irritating foods, and not consuming water, drinks, and yogurt with food. In addition, the instructions to strengthen the stomach by consuming stomach-strengthening foods such as pomegranate paste can also be effective. Inflammation caused secondary to nazleh, can be expressed in such a way that stimulants in the stomach and gastrointestinal tract can cause inflammation in the respiratory mucosa of the nose and throat of the affected person (14). Consuming tonic food such as pomegranate paste can prevent the ascent of these substances to the throat and inflammation by strengthening the stomach (13).

In reviewing articles on the effect of complementary medicine on allergic rhinitis, few clinical trials have been done. In a study on allergic rhinitis in two intervention groups with non-alcoholic malt beer and fexofenadine, the effectiveness of complementary medicine was as much as that of the effectiveness of fexofenadine in reducing symptoms, though further studies were recommended (15). In another study conducted by Amani et al., the coriander seed extract demonstrated positive effects on the symptoms of runny nose, nasal congestion, and eye redness (16).

However, studies have raised the issue of reduced inflammation due to the effect of pomegranate on reducing nitric oxide (17-20). And the anti-allergic properties of pomegranate (19, 21, 22). The topic of participatory gastric diseases can be further explored in various diseases to achieve good benefits for the affected people.

Conclusion

Due to the problems mentioned for the chemical drugs, it is necessary to research and review new methods and produce medications with fewer side effects. Using Persian Medicine and administering pomegranate paste could improve the symptoms of allergic rhinitis, so further research is needed in this regard.

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TOTAL NASAL SYMPTOM SCORE

PLEASE ANSWER ALL QUESTIONS TO THE BEST OF YOUR ABILITY. This information will assist us in understanding and treating your symptoms.

1. Please rate how your nasal congestion has been over the past: 12 hours Last 2 weeks

None 0 0

Mild (symptom clearly present but easily tolerated) 1 1

Moderate (symptom bothersome but tolerable) 2 2

Severe (symptom difficult to tolerate – interferes with activities) 3 3

2. Please rate how your runny nose has been over the past: 12 hours Last 2 weeks

None 0 0

Mild (symptom clearly present but easily tolerated) 1 1

Moderate (symptom bothersome but tolerable) 2 2

Severe (symptom difficult to tolerate – interferes with activities) 3 3

3. Please rate how your nasal itching has been over the past: 12 hours Last 2 weeks

None 0 0

Mild (symptom clearly present but easily tolerated) 1 1

Moderate (symptom bothersome but tolerable) 2 2

Severe (symptom difficult to tolerate – interferes with activities) 3 3

4. Please rate how your sneezing has been over the past: 12 hours Last 2 weeks

None 0 0

Mild (symptom clearly present but easily tolerated) 1 1

Moderate (symptom bothersome but tolerable) 2 2

Severe (symptom difficult to tolerate – interferes with activities) 3 3

5. Please rate how difficult sleep has been with nasal symptoms: Last night Last 2 weeks

None 0 0

Mild (symptom clearly present but easily tolerated) 1 1

Moderate (symptom bothersome but tolerable) 2 2

Severe (symptom difficult to tolerate – interferes with activities) 3 3

TOTAL SCORE: _____ / _____