

# A Cases of Near-fatal Anaphylaxis: Parsley “Over-use” as an Herbal Remedy

Sevket Arslan, Ramazan Ucar, Ahmet Zafer Caliskaner

Necmettin Erbakan University Medical Faculty, Division of Immunology and Allergic Disease, Konya, Turkey . Necmettin Erbakan University Medical Faculty, Division of Immunology and Allergic Disease, Konya, Turkey

**Corresponding author:** Sefket Arslan, MD. Division of Immunology and Allergic Disease. Necmetin Erbakan University Medical Faculty, Konya, Turkey. E-mail: sevketarslan77@hotmail.com

## ABSTRACT

The use of herbal products in patients with allergic diseases is a special problem and still controversial. But, many people often use herbs to maintain good health. The patients use self-prescribed remedies as medications but do not inform their physicians about herbal use. Unfortunately, some herbal self-medications may have unexpected effects and interactions which may lead to fatal complications. In this report, we describe a female patient who suffered near-fatal anaphylaxis to parsley.

**Keywords:** Anaphylaxis, fatal, herbal.

## 1. 1. INTRODUCTION

The use of herbal products is very popular in our country. Some people use them to maintain good health, and others, unfortunately, use manufactured or self-produced herbs to treat disorders (self-medication). Some studies have stated that herbal products may be harmful to patients with allergies. Indeed, allergic reactions, ranging from oral allergy syndrome to severe anaphylactic attacks, have been seen, especially in people with weed pollen allergies (1, 2). In this paper, we present the case of a woman who experienced near-fatal anaphylaxis to parsley.

## 2. CASE PRESENTATION

A 41-year-old woman was referred to our clinic with a history of a near-fatal anaphylactic attack six week prior, and we investigated the etiology of the anaphylaxis.

### Medical History

*Mode of introduction and course of the reaction:* Our patient started having a feeling of warmth in her body and itching symptoms after dinner. After a short period of time, she experienced additional symptoms-cramping pain in the abdomen, difficulty breathing, and palpitations. Within minutes, she also developed severe angioedema of the eyes and lips, followed by generalized urticarial plaques all over the body. Before the initial examination and evaluation could be completed in the emergency department, the patient lost consciousness. Her blood pressure was 84/40 mmHg, and her pulse rate was 120 per minute and weak. At the same time, the patient was in severe respiratory distress. Epinephrine, antihistamines, IV fluid, and oxygen therapy were quickly administered, and the symptoms were controlled. After stabilizing the patient's vital signs, she was given a 1mg/kg dose of methylprednisolone, and she was hospitalized

and observed in the coronary unit for 24 hours. No complications (e.g. bi-phasic or multi-phasic anaphylactic episodes) were observed during follow-up. After making a full recovery, the patient was discharged and given peroral antihistamine treatment for seven days.

*Exposures just prior to anaphylaxis:* The patient developed anaphylaxis within 45 minutes after eating dinner. She stated that she had consumed salad, rice, and ayran (a drink made of yogurt and water). During the same time period, she was not exposed to any known causes of anaphylaxis, such as allergens taken orally (e.g. drugs), or any allergens likely to come through the skin, such as insect bites. *Previous history of allergy and anaphylaxis:* It was learned that the patient was completely healthy before the anaphylactic attack, not using any medications, including herbal products, and had no history of allergy.

### Second interview on medical history

Positivity for a definitive allergen was found in the skin prick test, and the patient's medical history was taken again. We asked her again about drugs, herbal preparations, and food habits, particularly parsley, which had tested positive on the skin test. In this second interview, the patient mentioned that she did not use herbal products, but had been consuming one cup of chopped parsley almost every day for several years, to improve her health. She did not feel the need to talk about it in her medical history, because she did not think of parsley as an herbal product. Parsley salad was part of the patient's last meal before she experienced anaphylaxis. Anaphylaxis after exposure to an antigen that is positive in a skin test confirmed the relationship between the emergence of the antigen and the reaction. However, the continuous consumption of a food that suddenly caused a severe reaction could not be fully explained.

The patient was asked again about previous allergic reactions, and her response was the same (i.e. she had not previously experienced any allergic reaction to parsley). Then, the question regarding history of the reaction was asked in different words, as the patient was not familiar with “allergy terminology”. The patient was asked, “Did you ever feel anything after eating parsley?” This time, the answer was, “Yes, I was feeling mild hot flashes and palpitations” over the last few months. These statements are consistent with flushing and tachycardia, and the systemic allergic reaction indicated sensitivity to an allergen. The patient had interpreted the body’s reactions as signifying that the parsley was providing benefits to “maintain good health”. Rather than worrying about or being suspicious of the reaction, she was satisfied that she was “seeing benefits” of eating parsley.

### 3. DISCUSSION

This case demonstrates the importance of several aspects regarding herbal self-medication and allergic reactions: Herbal products can cause near-fatal anaphylactic reactions. The use of herbal products is under investigation, and the nature of weed vegetables that are commonly consumed is being questioned. Physicians and patients may not use common terminology; therefore, the words used during an interview (e.g. reaction, anaphylaxis) should be explained, so that they are understood by the patient. The presence of previous symptomatology and the patient’s ability to interpret them are important for the prevention of severe reactions.

It is important to monitor herbal treatments in the practice of alternative and complementary medicine. “Herbalists” should have training in botany and pharmacology in addition to a medical education, and treatments using herbs must be carried out by experts. However this it is often not possible. The rapid development of the “herbal” industry and easily accessible herbal products have led to the spread of self-medication. Sometimes these products are used at the advice of non-herbalist physicians or under the guidance of the seller.

In our country, due to government support and lower health insurance costs, all citizens benefit from orthodox medicine health care services. In such a society, alternative medical methods are typically considered less desirable. In a Turkish study, the rate of herbal use was 14.2% (2). However, people often use herbal products to maintain good health rather than treating symptoms. In addition, “herbals are always safe” is a very common opinion. The different allergic reactions can be seen, especially in people who are allergic to pollen, depending on the herbal product. We treated a patient in our clinic who had a serious reaction to an herbal substance (3). Nearly all clinical presentation of immediate reactions such as urticaria, conjunctivitis, asthma exacerbation, anaphylaxis have been reported with herbals (4, 5, 6).

When herbal products are mentioned, it is usually in the form of tablets or capsules, or uncommon plants that are not included in routine consumption (1). However, we often consume plants in our daily lives that are in the class of weeds but are referred to as vegetables, as they are not considered herbal products because they are consumed

as food. These plants, when not used for the purpose of and in amounts of routine consumption, should be considered in the “herbal products” category (2, 3). Such was the event presented in this paper. The patient used parsley regularly and in large amounts, in foods and salads, to maintain good health. She was atopic; over time, because of her atopic allergy, which is defined as producing a sudden reaction to an allergen, she became allergic to parsley.

Medical history has a very important role in investigating the etiology of anaphylaxis. However, the patients need to understand the questions in order to obtain useful results from the conversation. Therefore, physicians should use terminology understood by the patients, so that the questions, which are the means to obtaining answers, do not block retrieval of the correct information instead. In the presented case, while the answer to the question “history of previous reaction to parsley” was “No”, the answer to the question regarding a history of any feelings associated with parsley use was “Yes”. The patient’s feelings, hot flashes and palpitations, were evidence of “recurrent allergic reaction to parsley”. If the patient’s previous symptoms or previous mild reactions had been accurately interpreted, the development of the near-fatal anaphylactic attack might have been prevented. However, it was not possible, due to the patient’s misinterpretation. Moreover, the symptomatology was perceived in a completely different way, as “seeing the benefit”, and the patient approached anaphylaxis, step by step (1, 3, 6).

### 4. CONCLUSION

People will continue to use herbal products, one way or another, and it is not possible to have herbalist physicians available for each patient. Family physicians are especially required to inform their patients about issues such as herbal products, potential loss, and allergic reactions. There are also side effects associated with herbal products, just as with chemical drugs. “Primum non nocere”, which is one of the general rules of medicine, is an indisputable fact that should true for herbal applications.

**CONFLICT OF INTEREST: NONE DECLARED.**

### REFERENCES

1. Soares Neto JA, Galduróz JC, Marques LC, Kato ET, Macrini T, Rodrigues E. Possible Adverse Reactions to Herbal Products: A Study with Individuals Who Resort To Popular Medicine in the City of Diadema, SP, Brazil. *Phytother Res.* 2014;8(3): 405-411.
2. Caliskaner Z, Kartal O, Gulec M, Ozturk S, Erel F, Sener O, et al. Awareness of allergy patients about herbal remedies: a cross-sectional study of residents of Ankara, Turkey. *Allergol Immunopathol (Madr).* 2010; 38(2): 78-82.
3. Caliskaner Z, Karaayvaz M, Ozturk S. Misuse of a herb: stinging nettle (*Urtica urens*) induced severe tongue oedema. *Complement Ther Med.* 2004; 12(1): 57-58.
4. Subiza J, Subiza JL, Alonso M, Hinojosa M, Garcia R, Jerez M, et al. Allergic conjunctivitis to chamomile tea. *Ann Allergy.* 1990; 65(2): 127-132.
5. Galdi E, Perfetti L, Calcagno G, Marcotulli MC, Moscato G. Exacerbation of asthma related to *Eucalyptus pollens* and to herb infusion containing *Eucalyptus*. *Monaldi Arch Chest Dis.* 2003; 59(3): 220-221.
6. de Boer HJ, Hagemann U, Bate J, Meyboom RH. Allergic reactions to medicines derived from *Pelargonium* species. *Drug Saf.* 2007; 30(8): 677-680.