

## Fatal Anaphylactic Shock Developed With Walnut And Rosehip\*\*

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### ABSTRACT:

Anaphylaxis term which has been previously defined as severe life threatening systemic reactions that are revealed with the mediators released by mast cells and basophils, is now defined as a serious systemic hypersensitivity reaction with sudden onset which may lead to death. Anaphylaxis is an allergic reaction which requires rapid diagnosis and treatment, progresses rapidly and threatens the life. The most common triggers of anaphylaxis are food allergens, insect stings and drugs. It is one of the vital emergencies which can be resolved with correct diagnosis and differential diagnosis carried out by physicians and a rapid and effective treatment. Herein, we aimed to underline that physicians should be aware about the mortality of anaphylaxis cases that are commonly encountered in emergency departments

**Keywords:** Food Allergy, Anaphylaxis, Emergency Department

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### INTRODUCTION

Anaphylaxis is an allergic reaction which progresses rapidly and threatens the life requires rapid diagnosis and treatment. Life long prevalence of anaphylaxis related to all triggering agents is estimated as 0.05%-2% in general population (Lieberman et al., 2006). The most common triggers of anaphylaxis are food allergens, insect stings and drugs (Cmorej et al., 2017). Foods are the most common causes leading to anaphylaxis, accounting for 33.2%-56% of all anaphylaxis cases (Ben-Shoshan et al., 2011). In this study, we present a case that we thought to be developed due to food allergy in a patient who developed anaphylactic shock soon afterwards eating walnut and rosehip and resulted in

mortality despite all interventions and efforts.

### CASE

A 77-year-old female patient admitted to our emergency department by 112 team. The patient was intubated and cardiopulmonary resuscitation had been started. The relatives of patient stated that the patient had complaints such as rash throughout her body and shortness of breath after she ate walnut and rosehip. 112 team stated that also that the patient there were diffuse rash and shortness of breath in the physical examination of the patient after their arrival, and she developed severe anaphylaxis symptoms and cardiopulmonary arrest within seconds. We determined diffuse periorbital,

mouth and neck edema with central cyanosis and subcutaneous crepitation. She had external nose and ears bleeding. Cardiopulmonary resuscitation CPR continued for 15 minutes by the 112 team. Cardiopulmonary resuscitation was continued for further 40 minutes when the patient arrived to the emergency department. However, vital functions of the patient who did not reponse to the resuscitation and the it has been terminated after 40 minutes.

## DISCUSSION

Anaphylaxis is defined as a diffuse or systemic hypersensitivity reaction which is developed rapidly and/or characterized by circulatory problems and is a life-threatening condition. Mostmans et al. (2016) found that anaphylaxis cases accounts for 0.04% of all emergency presentations and allergic diseases are more common among women and severity of anaphylaxis increases with age. Yang et al. (2008) found anaphylaxis in 0.014% of the patients included in their study. Although the incidence of anaphylaxis is low in the studies, it can show a severe progression and even may be fatal as in our patient. As the study by Mostmans et al. (2016) our patient also was female and elderly, supporting the literature.

Mostmans et al. (2016) found that 51.7% of anaphylaxis cases were related to food. Ghazali et al. (2017) found that foods are among the most common causes of allergy by 24%. Cianferoni and Muraro (2012) emphasized that food-induced anaphylaxis is one of the most common causes of anaphylaxis. They found that the most commonly encountered foods are peanut, pistachio, milk, egg, sesame, fish and shellfish. Wang et al. (2007) found that the incidence of food-induced anaphylaxis is increasing (Wang and Sampson, 2007). Brown et al. (2001) concluded that the most common causes of anaphylaxis are associated with drugs, toxaphene and food. Sarinho and Lins (2017) found that milk, egg, peanut, hazelnut, walnut, wheat, sesame seeds, shrimps, fish and fruits will accelerate the allergic emergency. As seen in the literature studies, food-induced anaphylaxis is frequently seen, and as in the study by Sarinho et al. our patient also developed anaphylactic shock soon afterwards she ate walnut. Thong et al. (2005) reported that the most common symptoms in anaphylaxis cases are dyspnea (59.7%),

urticaria (58.2%), angioedema (44.8%), syncope (43.3%) and hypotension (28.4%). Brown et al. (2001) found skin characteristics in 94%, syncope/dizziness in 35%, laryngeal edema in 25%, and systolic hypotension in 21.7% of the patients with anaphylaxis. Ghazali et al. (2017) clinically found cardiovascular findings in 52%, respiratory findings in 53% and anaphylactic shock in 31% of the anaphylaxis cases in the emergency department. Helbing (1994) determined urticaria, laryngeal edema, cutaneous, respiratory such as asthma or gastrointestinal diarrhea clinical signs and symptoms due to food allergy related reactions. Brown et al. (2001) reported 0.7% mortality rate among patients with anaphylaxis. Motosue et al. (2017) evaluated the patients with anaphylaxis admitted to the emergency department and 11.5% were hospitalized, 5.3% needed intensive care unit follow-up and 1.5% were mechanically ventilated. As seen in the literature, local and systemic serious symptoms may be seen in anaphylaxis. In our patient anaphylactic shock developed due to food allergy led to cardiovascular arrest and resulted in death in a short time. This is also supported by the studies from the literature.

## CONCLUSION

Food allergy affects patients life quality due to skin rashes and psychologically. It may cause serious morbidity and very highly costs for medical care. Food allergy may cause a wide range of symptoms. It may be overcome with mild symptoms, but occasionally it may progress rapidly to fatal anaphylactic shock unexpectedly. Anaphylaxis is the most serious clinical situation of allergy, which may lead to mortality due to delayed diagnosis and treatment. It is one of the fatal emergencies which can be resolved with rapid diagnosis and effective treatment. Therefore all physicians should be aware about this clinical diseases It can be life-saving for people with anaphylaxis to be educated about anaphylaxis and to have the epipen injections with them.

## Conflict of Interest

There is no conflict of interest among the authors of the article

## Ethical Approval

For this study, all processes were explained to the patient's relatives, and verbal and written consents were obtained by making necessary explanations. Confidentiality is adhered to in the article.

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