

Case Report

Uvular Edema Due to Ecbalium Elaterium: A Case Report

Ecbalium Elaterium Kullanımına Bağlı Gelişen Uvular Ödem: Olgu Sunumu

Fatma Sarı DOĞAN ¹, Merve GÜNEŞ ¹, Özlem GÜNEYSSEL ¹
Vehbi ÖZAYDIN ², Merve DEMİRELLER ²

1. University of Health Sciences, Dr. Lütfi Kırdar Kartal Training and Research Hospital, Emergency Medicine Clinic

2. Medeniyet University, Göztepe Training and Research Hospital, Emergency Medicine Clinic

SUMMARY

Ecbalium elaterium belongs to Cucurbitaceae family whose juice is used in the treatment of rhinosinusitis. In this paper, severe uvular edema case after using *E. Elaterium* for the treatment of sinusitis is presented.

Keywords: uvular edema; ecbalium elaterium; sinusitis; emergency

ÖZET

Ecbalium elaterium, Cucurbitaceae ailesinden olup bitkinin meyvasının suyu, halk arasında rinosinüzit tedavisinde kullanılmaktadır. Yazımızda; sinüzit tedavisi amacıyla *E. Elaterium* kullanımı sonucu ciddi uvula ödemi gelişen bir olgu sunulmuştur.

Anahtar Kelimeler: uvula ödemi; ecbalium elaterium; sinüzit, acil

INTRODUCTION

Alternative medicine is used for the treatment of several diseases worldwide. Numerous publications, about the complications of different plant usage for different treatment goals are present in literature. *Ecbalium elaterium* (Picture 1), belongs to Cucurbitaceae family, takes place in alternative medicine because of cytotoxic, analgesic and purgative effects of the bioactive materials included. (1, 2). The plant's juice is used as diluted nose drip for the treatment of rhinosinusitis in the community. Uvula edema is a life-threatening condition that occurs as a result of several reasons such as trauma, infection and allergic reactions (3). In this paper, a severe uvula edema case, after using *E. Elaterium* for sinusitis treatment is presented.

CASE

34 years old male patient was referred to the emergency department with difficulty in swallowing and shortness of breath. Pulse rate: 88/min, respiratory rate: 14/min, oxygen saturation was 97%. In the physical examination, uvula was hyperemic and edematous (Picture 2). Chest examination was normal, there was no bronchospasm. Other systemic examination was normal. In detailed history, it is understood that he had chronic sinusitis, he put 5-6 drops of *Ecbalium elaterium* plant's juice, which is known as squirting cucumber in community, in his nose for the treatment of sinusitis because of friend advise and the shortness of breath occurred after 30 minutes. The patient was monitored, IV line was obtained. In biochemical parameter, electrolytes, liver and kidney function tests were normal. 50 mg defenhydramin, 80 mg metilprednisolon and 40 mg pantaprozol was applied via intravenous (IV) route.

The patient was consulted to otorhinolaryngologist because uvular edema was not regressed. 80 mg extra dose of metilprednisolone was applied to the patient with the advise of otorhinolaryngologist, who had no extra pathology. After 12 hours follow-up in the emergency room, uvular edema was regressed and patient was discharged with recommendations.

DISCUSSION

Uvular edema, frequently seen with hives, angioedema, anaphylaxis, is often idiopathic and can occur secondary to infection, trauma and allergens (3). Patients present with shortness of breath and difficulty in swallowing. *Ecbalium elaterium* has a cucumber like fruit which is a weedy plant that belongs to the Cucurbitaceae family growing in Mediterranean countries (1, 2). Alkaloid content of the plant named cucurbitacin is responsible for the allergic reactions (1). This bioactive contents are reported as antitumoral, cytotoxic, analgesic and purgative against jaundice (1).

Contact

Corresponding Author: Fatma Sarı DOĞAN

Address: Emergency Medicine Clinic, Dr. Lütfi Kırdar Kartal Training and Research Hospital, Istanbul, Türkiye

Phone Number: +90 (544) 335 95 65

E-mail: fatmasardogan@gmail.com

Submitted: 20.12.2016

Accepted: 04.01.2017



Picture 1: Ecbalium Elaterium.



Picture 2: Hyperemic and edematous uvula.

The fruit juice is used as diluted nose drop for the symptomatic treatment of sinusitis (1, 2). In literature, the cases, who developed allergic reactions, uvular edema, periorbital edema, allergic conjunctivitis, nasal mucosal necrosis after usage, are present (1, 4). There is no history of allergy in our patient. Shortness of breath and difficulty in swallowing developed after using E. Elaterium fruit juice as nose drop. Shortness of breath and difficulty in swallowing occurred secondary to uvular edema that systemic allergic reaction did not observed. Salhab (1) collected the cases in literature and evaluated the reason of use, main complaint and emergency treatment. In Vlachos and friends' case, death occurred as a result of cardiac and renal failure, and in other cases edema in smooth palate is reported (1, 5).

Cardiac or renal pathology was not observed in our patient. Oxygen, antihistaminic, methylprednisolone are frequently used in treatment as in allergic reactions, adrenalline is necessary if it is with anaflexia. Oxygen, antihistaminic and methylprednisolone are applied to our patient. Patient with uvular edema should be followed carefully for the safety of respiratory tract, early intubation should be thought in severe upper respiratory tract infection.

RESULT

Patients referred to emergency department with shortness of breath and difficulty in swallowing should be carefully examined for the purpose of uvular edema. Detailed history should be received for local herbal agent usage with drugs that can lead to allergic reactions.

REFERENCES

1. Salhab A S. Human Exposure to Ecballium elaterium Fruit Juice: Fatal Toxicity and Possible Remedy. *Pharmacology & Pharmacy*, 2013, 4, 447-50.
2. Satar S, Gokel Y, Toprak N, Sebe A. Life-threatening uvular angioedema caused by Ecbalium elaterium. *Eur J Emerg Med*. 2001 Dec;8(4):337-9.
3. Alcoceba EI, Gonzalez M, Gaig P, Figuerola E, Auguet T, Olona M. Edema of the uvula: etiology, risk factors, diagnosis, and treatment. *J Investig Allergol Clin Immunol*. 2010;20(1):80-3.
4. Eken C, Ozbek C, Yıldırım CK, Eray O. Severe uvular edema and nasal mucosal necrosis due to Ecbalium elaterium (squirting cucumber): An allergic reaction or direct toxic effect? *Clinical Toxicology* (2008) 46, 257-58.
5. Vlachos P, Kanitsakis NN, Kokonas N. Fatal cardiac and renal failure due to Ecbalium elaterium (squirting cucumber). *J Toxicol Clin Toxicol*. 1994; 32(6): 737-8.