



## CASE REPORT

### TONGUE AND UVULAR EDEMA CAUSED BY BRASSICA ARVENSIS

Gulbin Aygencel, Emine Akıncı, Ayfer Keles, Ahmet Demircan  
Gazi Üniversitesi, Tıp Fakültesi, Acil Tıp Anabilim Dalı, Ankara, Türkiye

#### ABSTRACT

Acute uvular and tongue edema are potentially life-threatening conditions with a variety of causes. Allergy, infection, trauma or physical causes should be excluded. We report a case of a patient who suffered angioedema of the tongue and uvula following ingestion of Brassica arvensis (Charlock mustard, wild mustard).

A 53-year old woman presented to our Emergency Department with swelling of the tongue and uvula, and dysphagia. The symptoms occurred after the ingestion of raw leaves of Brassica (Sinapis) arvensis in a salad. On physical examination, uvular edema was observed. The patient was successfully managed with intravenous prednisolone and chlorphenoxamine. After a 24-h observation, the patient was discharged in good health.

In the light of this recent case, the clinician should be aware of the potential side effects of herbs or herbal medicines.

**Keywords:** Uvular edema, Herbs, Brassica arvensis, Side effects

### BRASSICA ARVENSIS'E BAĞLI DİL ve UVULA ÖDEMİ

#### ÖZET

Bir çok sebebe bağlı gelişebilen akut uvula ve dil ödemi yaşamı tehdit edebilen nadir durumlardan biridir. Allerji, infeksiyon, travma ve fiziksel nedenler altta yatan patolojiler açısından araştırılmalıdır. Bu yazıda Brassica arvensis (yabani hardal veya Charlock hardalı) tüketiminden sonra gelişen, dilde ve uvulada anjiyoödem ile giden bir olgu sunulmuştur.

53 yaşında bayan hasta Acil Servisimize ağız içinde ve dilde şişlik ve yutma güçlüğü şikayeti ile başvurdu. Hasta şikayetlerinin vahşi hardal yaprakları içeren bir salatayı yedikten sonra geliştiğini ifade etti. Fizik muayenesinde de oral kavitede, dilde ve uvulada ödem tesbit edildi. Hastaya intravenöz steroid ve antihistaminik tedavisi başlandı. Belirti ve bulguları 24 saat sonunda gerileyen hasta gerekli öneriler ile taburcu edildi.

Bu olgunun bulguları ışığında, klinisyenlerin bitki ve bitkisel ilaçların yan etkileri konusunda da dikkatli olmaları önerilebilir.

**Anahtar Kelimeler:** Uvula ödemi, Bitkiler, Brassica arvensis ,Yan etkileri

#### INTRODUCTION

Angioedema of the tongue and oropharynx is a rare and potentially life threatening adverse reaction related to inhaled or ingested allergens, infection, trauma or physical causes<sup>1</sup>.

Toxic constituents or allergens contained in plants are occasionally reported as factors triggering a toxic or allergic reaction in subjects who undergo folk medical practices or eat these plants<sup>2,3</sup>.

#### İletişim Bilgileri:

Gulbin Aygencel M.D.  
Gazi Üniversitesi Tıp Fakültesi, Acil Tıp Anabilim Dalı, Ankara,  
Türkiye  
e-mail: gencel69@hotmail.com

Marmara Medical Journal 2007;20(3);179-181



We report the case of a woman who presented to the emergency department with uvular and tongue edema. The reaction occurred after ingestion of *Brassica arvensis*, used for cooking purposes in some eastern Mediterranean countries.

## CASE REPORT

A 53-year old woman presented to our emergency department with a chief complaints of sore throat, swelling of the tongue and soft palate, dysphagia and mild shortness of breath. According to her history, the symptoms occurred an hour after the ingestion of raw wild mustard leaves in a salad for dinner.

The patient was generally in good health. There was no history of drug, trauma, fever, chills or recent upper airway disease symptoms. Her past medical history was unremarkable. Physical examination revealed an alert patient who appeared to be mildly anxious. Vital signs were normal. Examination of the head and neck revealed uvular and soft palate edema. The remainder of the physical examination was entirely normal. Laboratory investigations included CBC, urinalysis, serum electrolytes, hepatic and renal function tests, and arterial blood gas were normal.

The patient was successfully managed with intravenous prednisolone and chlorphenoxamine therapy. She was discharged with complete resolution of her symptoms of uvular edema after 24-hr observation and treatment.

## DISCUSSION

Uvular edema presents as foreign body sensation, sore throat, hoarseness, dysphagia, gagging and signs of upper airway obstruction<sup>1</sup>. The etiology may be related to inhaled or ingested allergens, drugs, some medications, trauma, infection, tumors, radiotherapy, some diseases or physical agents<sup>1,4-6</sup>. Hereditary angioedema, a genetic disorder of the complement system, is also presented with uvular edema<sup>1</sup>. In this case, the reaction occurred after ingestion of the plant, *Brassica arvensis*, and was probably due

either to an allergic reaction or to toxic elements in the plant. Type 1 hypersensitivity reaction is the usual cause of such an emergency, but toxic elements can produce the same effect.

Treatment of uvular edema is similar to anaphylaxis or severe allergic reactions<sup>1</sup>. Our patient responded to prednisolone and antihistamine. The good outcome of our patient with drug therapy may be the result of the small amount of intake or early admission to the emergency department or less toxicity of the plant.

*Brassica arvensis*, known as wild or Charlock mustard, is a perennial herb of the Cruciferae family, endemic to the Mediterranean region. Leaves of the plant, raw or cooked, are added to salads or used as potherb. Immature flowering stems are cooked in much the same way as broccoli. An edible oil is obtained from the seed, it is used mainly for cooking purposes, but also for salads, can be rich in erucic acid which is toxic. The seed is used as a mustard flavouring. The juice of the roots is used in the treatment of chronic coughs and bronchial catarrh. The seed, powdered, with salt is said to be a folk remedy for cancer<sup>7</sup>.

In veterinary literature, many reports on disease occurring in brassica-fed dairy cattle may be found<sup>8</sup>. Few case reports about the human toxicity of this plant exist<sup>7</sup>.

In conclusion, in the light of this recent case, the emergency physician should be familiar with the potential serious side effects of herbs or herbal medicines. Because of the life threatening potential, physicians should evaluate and manage the uvular edema patient very carefully.

## REFERENCES

1. Goldberg R, Lawton R, Newton E, et al. Evaluation and management of acute uvular edema. *Ann Emerg Med* 1993; 22: 251-255.
2. Chan TYK, Tam HP, Lai CK, et al. A multidisciplinary approach to the toxicologic problems associated with the use of herbal medicines. *Ther Drug Monit* 2005; 27: 53-57.
3. Savage A, Hutchings A. Poisoned by herbs. *Br Med J* 1987; 295: 1650-1651.
4. Kuo DC, Barish RA. Isolated uvular angioedema associated with ACE inhibitor use. *J Emerg Med* 1995; 13: 327-230.



5. Koussidis GA, Mountantonakis S, Petrichou CC. Folk remedies still in use: a case of soft palate and uvular edema due to Ecbalium elaterium. *Int J Clin Pract* 2002; 56: 817.
6. Eray O, Tuncok Y, Eray E, et al. Severe uvular angioedema caused by intranasal administration of Ecbalium elaterium. *Vet Human Toxicol* 1999; 41: 376-378.
7. Brassica napus arvensis. Available at: <http://alienplant.nier.go.kr/kor/html/>
8. Morton JM, Campbell PH. Disease signs reported in south-eastern Australian dairy cattle while grazing Brassica species. *Aust Vet J* 1997; 75: 109-113.