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# Letters to the editor

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## ALLERGY TO GRAPES

### *To the Editor:*

We have read with great interest the case presented by Vaswani et al.<sup>1</sup> Allergy caused by grapes has rarely been reported as causing oral allergy, contact dermatitis, occupational rhinitis, urticaria/angioedema or anaphylaxis.<sup>2-4</sup> We also would like to report a case of adult onset grape allergy in addition to two other fruit hypersensitivity reactions which we have diagnosed recently.

A 39-year-old female, working in a government office had been born in a city located in northern Turkey and lived in Ankara Turkey for 16 years. She had rhinoconjunctivitis for the last 4 years during May and June and developed asthma suddenly this past year. All of the symptoms were controlled with appropriate medical treatment. The patient was referred last July complaining of acute urticaria, angioedema, shortness of breath, wheezing and dry cough which appeared after eating mulberry for the first time. In the past, reactions occurred after eating white grapes and on another occasion, white grapes and apricots. The reactions appeared immediately after eating mulberry and in 2 hours with the other foods. The patient went to the emergency room each time because of life threatening reactions. Family history disclosed that her aunt and older sister had asthma.

The results of skin prick tests which were performed in another center 2 years ago, showed that she was sensitive to grass mix, weed mix, timothy and avena sativa. In the repeated skin prick tests in our laboratory she had positive tests to timothy, mugworth, hazel pollen and *Olea europaea*. Skin prick tests performed with various foods revealed sensitivity to zea mays, peanut, orange and green beans. The serum specific IgE levels were 0.59 kU/L (class 1) for apricot and 1.15

kU/L (class 2) for grape by RAST. We could not perform any RAST tests for mulberry. The serum total IgE level was 215 IU/mL.

The patient did not have any problems with foods other than grape, mulberry and apricot. She was diagnosed as having food allergy including grape and was advised to avoid the responsible foods in her diet.

Grape is a fruit which is commonly cultivated and eaten in Turkey. In a questionnaire survey of 4331 university students performed in 1994 in Hacettepe University none were found to have grape allergy.<sup>5</sup> In another study of hospitalized patients in Hacettepe University Hospital which we have conducted from January to September in 950 patients (unpublished data), there were none with grape allergy. Although very rare, grape should also be kept in mind as a cause of allergy.

G KARAKAYA, MD

A F KALYONCU, MD

Hacettepe University Hospital  
Department of Chest Diseases  
Adult Allergy Unit  
Ankara, Turkey

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### *To the Editor:*

I read with great interest the case report described by Vaswani et al regarding adult-onset grape hypersensitivity and anaphylaxis.<sup>1</sup> A similar case was recently seen at the Massachusetts General Hospital. A 38-year-old health care worker developed an itchy nose and palate while eating a bowl of Raisin Bran cereal. He developed repeated bouts of sneezing, facial flushing, and periorbital angioedema. He medicated himself with 10 mg of loratadine and administered 0.3 mL of 1:1000 epinephrine subcutaneously. Symptoms subsided in 30 minutes and did not progress. The patient was subsequently found to have a positive skin test to a grape extract (Greer Laboratories, Lenoir, NC). The patient had no prior history of food allergy but had been diagnosed with latex allergy (positive latex RAST test and skin test) approximately 1 year earlier. During this year, the patient has also had a mild systemic reaction consisting of flushing, sneezing, and marked swelling of the uvula following the ingestion of bananas; treatment with epinephrine was required.

Latex allergy has been associated with hypersensitivity to certain fruits, most often bananas, avocados, and kiwi fruit.<sup>2-5</sup> I bring this case to the authors attention because of the possibility that grape allergy may be associated with latex hypersensitivity.<sup>6</sup> The patient's occupation was not mentioned in the report of Vaswani et al. Was the patient in a high-risk group for the development of latex allergy? Did she have any symptoms to suggest an underlying latex allergy? Were serologic or skin tests performed to probe a latex allergy?

I agree with the authors that adult-onset allergy to grape is an uncommon

occurrence. Some investigators have advocated searching for latex allergy in all fruit-allergic patients.<sup>7, 8</sup>

JAMES MACLEAN, MD  
Assistant Chief, Clinical  
Immunology and Allergy Units  
Massachusetts General Hospital  
Boston, Massachusetts

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## To the Editor:

We appreciate Dr. MacLean's letter that refocused our attention again on the issue of IgE antibody cross-reactivity among natural rubber latex and grape allergens. The 28-year-old woman featured in our case report,<sup>1</sup> while not a healthcare worker, did have a history of part-time occupational latex glove exposure. Her primary employment has been as an account representative at a bank. She also has worked part-time (2 days per week) as a hairdresser for over 10 years, during which time she routinely used non-sterile gloves that she purchased from the local drug store to protect her hands. She could not recall the brands of gloves that she used, but she did recall them being powdered and primarily latex. When asked during her initial diagnostic evaluation, the subject provided no history of any allergic symptoms that could be associated with latex gloves. In subsequent questioning, she admitted to a rash that was localized to the area of glove contact and occasional episodes of facial swelling and cough while working at the hairdresser. She associated none of these with the use of gloves. More recently, since the case has been reported, she has developed oral-pharyngeal itching and coughing every time she eats bananas.

Because the subject was and is currently still pregnant, she was not admitted to the multi-center latex skin

testing protocol where we could have performed a puncture skin test to natural rubber latex sensitization using the Greer reagent. We have analyzed her blood sample collected at the time of the grape-associated systemic allergic symptom for latex specific IgE. It was strongly positive (Pharmacia-UpJohn CAP System, latex-specific IgE = 85.6 kIUa.L). This positive latex serology supports the presence of a latex sensitivity.<sup>2</sup> It also suggests that her two episodes of generalized urticaria, angioedema, and dyspnea after eating white grapes and the oropharyngeal pruritus and cough after eating bananas could have stemmed from cross-reactive IgE antibody. We appreciate this opportunity to clarify her occupational history and with further evaluation to confirm a sensitivity for natural rubber latex.

ROBERT G HAMILTON, PhD  
and SURENDER K VASWANI, MD  
Johns Hopkins University School of  
Medicine  
Baltimore, Maryland

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