Cross-reactivity between melon and ragweed, nuts and birch pollen

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**Introduction:** Cross-reactivity occurs when the proteins in one substance are like the proteins in another one. As a result, the immune system sees them as the same. Cross-reactivity can occur between one food and another or between pollens and foods. There is a high co-occurrence of food allergy with other atopic diseases like allergic rhinitis and asthma.

**Case Report:** We report a case of an allergic cross-reaction between melon with ragweed and birch with nuts in the same person. A 46 year-old man, who works as a nut seller, has been diagnosed with allergic rhinitis caused by ragweed pollen, since he was a child. In October 2015, due to his continuous nasal obstruction he used an alternative medicine with melon juice. Ten minutes after he sprayed this juice in his nose he had oral allergy symptoms such as itchy mouth, scratchy throat, swelling of the lips and tongue, breathlessness and difficulty speaking. In April 2016 he had another episode of oral allergy syndrome after eating nuts. After this second episode he came to us. In order to identify the causative allergen of his IgE-mediated immediate allergic reaction, we performed skin prick tests, prick by prick test with nuts, melon, apple, banana, orange and measured specific IgE levels. These results showed he had positive reactions to several pollens and fruits. He was allergic to ragweed, rye pollen, birch, nuts, orange, apple and melon.

**Conclusion:** Allergic cross-reactivity between foods and pollens can have serious consequences: range from oral allergy syndrome to severe anaphylaxis. Recognizing and assessment of these syndromes is essential.