Food challenge in two patients with asthma and Ara h2 verified peanut allergy
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Background: IgE antibodies to peanut storage protein Ara h 2 have high diagnostic accuracy in verifying or excluding symptomatic peanut allergy, and high levels are considered to predict serious allergic reactions. In our experience some adult patients with peanut allergy suffer disabling fear of peanuts, having been taught that they risk a severe allergic reaction upon airborne exposure of, or consumption of peanuts.

Case Reports:
1. Female, 24 years old with asthma. The patient had been told to exclude peanuts from her diet and not to be in a room where peanuts are consumed. She had always carried an adrenaline auto-injector. Current level of Ara h2 was 9.3 kU/L. She had never experienced a severe allergic reaction and was eager to find out how she would react to accidental intake of peanuts. Following a strict protocol, she consumed one peanut and experienced instantly some mild oral symptoms. After 20 minutes she reacted with profuse vomiting and a stuffy nose. No adverse respiratory or circulatory reactions occurred and no adrenaline or other medication was given. The recovery was swift and the patient left the clinic after two hours.

2. Male, 20 years old with asthma. At the age of seven he reacted with oral symptoms, nausea and vomiting after eating peanuts. Hence he developed a fear of all nuts and had been prescribed an adrenaline auto-injector. Current level of Ara h2 was >100 kU/L. He wanted to know if his fear of nuts was relevant and if there still was a need to always bring the adrenaline auto-injector. According to a strict protocol he ate three peanuts. Initially he experienced transient mild symptoms from the throat, followed by abdominal pain and flushing 10 minutes later. After another 10 minutes he developed hives and profuse vomiting. Antihistamine and cortisone was given intravenously, and the patient recovered quickly. He left the clinic after being observed for four hours.

Conclusion: Both patients expressed great relief to have undergone a peanut challenge. Knowing that eating small amounts of peanuts did not affect their ability to breathe or their circulatory functions has helped them replace the fear of what might happen into a relevant respect for peanuts. Oral challenge with peanuts in patients with peanut allergy could be justified in some patients, even with elevated levels of Ara h2, when it is important for the patient to know not only that he/she will react but also how.