Anaphylaxis to fenugreek

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**Background:** Fenugreek (Trigonellafoenum-graecum), belonging to the Fabaceae plant family (legumes), has been used for culinary (as a spice in curry) and medical purposes since ancients times, especially in Greece, Egypt and India.

**Report:** A 16 years old male, with previous anaphylaxis after intake peanuts, presented anaphylaxis after intake fenugreek. Skin prick test with extracts: Peanut 10x20 mm, natural Fenugreek 6x8 mm, Lentil 2 mm, Soy 2 mm, Bean negative, Histamine 5 mm. Serum specific IgE determinations (ImmunoCAP; *EAST): Peanut 84 kU/L (Ara h 1 34.5 kU/L, Ara h 2 60.9 kU/L, Ara h 3 2.41 kU/L, Ara h 8 0.03 kU/L and Ara h 9 0.05 kU/L), Fenugreek >17.5 kU/L*, Curry 16.9 kU/L, Lentil 1.67 kU/L, Soy 2.65 kU/L, Bean 0.04 kU/L. IgE-binding-protein molecular mass study (SDS-PAGE-Immunoblotting): Peanut extract (raw and toasted): 75 kDa, 63 kDa, 21 kDa and 19 kDa. Fenugreek extract: IgE-binding bands between > 97kDa-30 kDa, 21 kDa and 19 kDa. Cross-reactivity study using SDS-PAGE-Immunoblotting-inhibition with fenugreek extract as solid phase: Raw and toasted peanut extracts inhibit completely IgE binding to fenugreek extract.

Study interpretation: 63 kDa-IgE binding band in peanut extract could correspond to 75 globulin Ara h 1. 21 kDa and 19 kDa detected bands in peanut extract could correspond to 2S albumin Ara h 2.01 and Ara h 2.02, bands of same molecular mass are observed in fenugreek extract. sIgE cross-reactive to fenugreek and peanut proteins are presents in patient’s serum.

**Clinical Relevance of Report:** We describe a case of fenugreek anaphylaxis. Cross-reactivity between fenugreek and peanut is demonstrated. We consider necessary to rule out fenugreek sensitization in peanut or other legumes allergic patients. Possibility of allergic reactions with curry in peanut and legumes allergic patients.

**Statement of consent for presentation and publication:** Local institutional review board approved study procedures, and written informed consent was obtained. The authors declare that they have no relevant conflicts of interest.