Goat’s milk allergy with an unusual presentation

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Background: Cow’s milk (CM) protein allergy is the most prevalent food allergy in children. Patients with CM allergy usually do not tolerate goat’s (GM) or sheep’s (SM) milk, since there is a high cross-reactivity between all of them. There are few case reports of patients with allergy to GM tolerant to CM.

Case Report: A 14 years old girl with IgE-mediated CM allergy since 6 months of age, with CM eviction till 12 years old. At this age an oral food challenge (OFC) has been performed, being negative. She started a regular ingestion of CM proteins during the last two years. She was referred to our Immunology department, one week after an episode of lip angioedema and generalized urticaria with intense pruritus after eating a meal containing goat cheese, parsley, tomato, onion, poached egg and pepper. Two weeks before she had already an episode of oral pruritus after eating a small portion of goat cheese.

Skin prick tests (SPT) (Bial - Aristegui, Bilbao, Spain) to milk and CM proteins (casein, α-lactoalbumin, β-lactoglobulin), egg and egg’s proteins, pepper and parsley, were negative. Prick by prick test (PPT) were positive to goat cheese (19x8mm), GM (11x7mm) and SM (7x9mm). In order to validate these results, PPT with goat’s cheese and milk and SM have been performed to 10 healthy adult controls. Specific IgE (UniCAP®, Thermo Fisher Scientific, Uppsala, Sweden) was positive to GM (8.7 kU/l) and SM (9.3 kU/l) and negative for CM and proteins. Total IgE 241 kU/L. Two weeks after the episode, an OFC with CM was performed, being negative, and daily ingestion of CM proteins has been advised with good tolerance.

Clinical Relevance: The majority of patients with allergy to CM proteins do not tolerate GM or SM. We describe a rare case of an adolescent girl who started to react to goat’s cheese after outgrown a CM allergy, probably due to sensitization to proteins without homology to CM proteins.