concomitants diseases in 61% of patients other allergic pathologies were present, being the most frequent atopic dermatitis, followed by rhinoconjunctivitis and asthma. In addition 64% of cases referred family history of atopy.

Conclusion: Peanut allergy is responsible of severe reactions, with 29% of anaphylaxis in our study. In our population, as described, the profile of persistent allergy to peanut in children is a male, with urticaria-angioedema as clinical manifestation, that tolerates other legumes, and with personal and family history of atopy.

LBTP1853 | Transplantation acquired egg and almond allergy in patient under tacrolimus immunosuppression

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Case report:

Background: Transplantation Acquired Food Allergy (TAFA) is a common phenomenon described after orthotopic solid organ transplantation, especially after liver or kidney transplantation. This occurrence is mostly reported in childhood and the etiology of TAFA is still unclear. However, it is known that immunosuppression with calcineurin inhibitors (CNIs), especially tacrolimus, compared to other CNIs, may play an important role in TAFA by inducing a shift towards T-helper 2 cells.

Case report: A 53-year-old patient underwent intestinal transplantation due to a desmoid tumor associated with Familial adenomatous polyposis (FAP). Immunosuppressive treatment with tacrolimus was given. Five years after transplantation, the patient presented with dysphagia, nausea, abdominal pain, vomiting, facial erythema and diarrhea related to the immediate intake of raw or poorly cooked egg. Six years later, the patient presented the same symptoms after almond intake. Both foods were previously throughout his life.

Methods and results: Skin prick-test with egg commercial extracts, prick by prick with almond, general IgE and specific IgE Immunoassay were performed. Skin prick testing was positive for commercial extracts of egg white (EW) (7 mm), egg yolk (EY) (6 mm), ovoalbumin (OVA) (7 mm), ovomucoid (OVM) (14 mm). Prick by prick was positive for almond (11 mm). The presence of Egg-specific IgE antibodies with positive results for EW 3.14 kUA/L, EY 0.91 kUA/L, OVA 1.67 kUA/L OVM 1.08 kUA/L and almond 0.56 kUA/L confirmed the sensitization with no evidence of sensitization to other nuts, profilin or LTP.

Conclusion and clinical relevance: As displayed in this report, we present a rare case of de novo egg and almond allergy, appearing in adulthood after intestinal transplantation. Given the limited experience in intestinal transplantation, increasing awareness of allergen sensitization following transplantation may help to prevent serious allergic reactions in transplant recipients. This case emphasizes the importance of the avoidance diet, thanks to which, it was not necessary to change the immunosuppressive treatment.

Keywords: anaphylaxis; egg allergy; almond allergy; transplant-acquired food allergy (TAFA); intestinal transplantation.

LBTP1854 | First report of monosensitivity to the Atlantic wolffish (*Anarhichas lupus*)

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Case report: The Atlantic wolffish (*Anarchichas lupus*) is a fish type belonging to the classification of the *Perciformes*, which also comprises tuna and mackerel. The wolffish thrives in moderately deep and cold water and can be found mostly in the North Atlantic Ocean. Here, we report a case series of two patients with a unique allergy only against wolffish, whereas they tolerate many other types of fish. Patient 1, a 44-year old female, developed throat swelling after consumption of wolffish. Specific IgE (sIgE) tests (*ImmunoCAP*, *Phadia Thermofisher*) were negative for all fish, including mackerel and parvalbumin. Skin prick tests (SPT) were positive for wolffish, shrimp and house dust mite, and negative for oyster, salmon, codfish, tuna, flatfish and sole. SPT for mackerel, which belongs to the *Perciformes* as well, was dubious. The patient tolerated all these fishes, including crustacean and mollusca. Patient 2, a 70-year old man, developed diffuse urticarial rash and hypotension with an acute serum tryptase increase to 23.6 μg/L 2 hours after ingestion of wolffish. Two years before, he already had an allergic reaction after eating wolffish and crustacean, however, at that time, the crustaceans were thought to be the culprit as he had tolerated all species of fish in between. SPT were positive for wolffish, scampi and oyster, and negative for salmon, codfish, trout and shrimp. SPT were dubious for tuna, mackerel, tilapia and sole. sIgE was positive for mackerel (1.18 kU/L) and negative for all other tested fish, including parvalbumin. Additional basophil activation tests (BAT) in both patients showed reactivity towards defatted wolffish and untreated wolffish, but not to codfish and swordfish. An immunoblot using wolffish, codfish, swordfish and shrimp extracts and the serum of both patients showed a strong binding to multiple protein bands with a molecular weight between 37 and 50 kDa. Protein bands with higher molecular weight showed reactivity as well, although less intense. On top of that, one of the patients reacted very strong to a protein band around 30 kDa. No protein bands were

identified to codfish and swordfish. An oral provocation test with codfish and salmon in patient 2, was negative.

To our knowledge, we hereby report the first case series of unique sensitization to Atlantic wolffish or *Anarhichas lupus*, demonstrated by SPT, BAT and immunoblotting.

LBTP1855 | Component-resolved study in microarray format of cow milk and chicken egg white major allergen proteins in allergic patients in Moscow region, Russia

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Background: The cow milk and chicken eggs are well-known allergen sources and ones of the main food products in Russia. However there is still shortfalls of information about IgE reactivity to individual allergens from these sources in this region. Here we aimed to determine the profile of IgE reactivity to three major chicken egg white allergens (Gal_d1, Gal_d2, Gal_d3) and five major cow's milk allergens (Bos_d4, Bos_d5, Bos_d6, Bos_d8, lactoferrin) in allergic patients in Moscow region, Russia.

Method: The study was conducted using sera from 60 anonymous subjects: 30 and 10 patients with ≥0.35 IU/mL serum levels of IgE to cow milk extract (f2, ImmunoCAP) and to chicken egg white extract (f1, ImmunoCAP) respectively and 20 negative controls. Allergens were purified from chicken egg white, cow milk and blood serum using modified published methods. IgE levels were measured using specially developed microarray method.

Results: Gal_d1 was found to bind IgE from 6/10, Gal_d 2 from 9/10 and Gal_d 3 from 9/10 of the patients sera tested. Bos_d4, Bos_d5, Bos_d6, Bos_d8 and lactoferrin were found to bind IgE from 21/30, 22/30, 20/30, 12/30 and l 3/30 of the patients sera tested respectively. We found a moderate positive correlation between total IgE and specific IgE to all chicken egg white allergens and to Bos_d4, Bos_d5, Bos_d6 and Bos_d8. Only two samples classified by ImmunoCAP as negative showed positive signal to cow milk protein, one of which was positive in ImmunoCAP f 27 (beef) test. About 95% of the patients could be diagnosed as egg white or milk allergic using the combination of these 8 allergens.

Conclusion: Sensitization to chicken egg white and cow milk individual allergens in Russia is comparable to previous studies in other regions. Eight investigated proteins together (Gal_d1, Gal_d2 and Gal_d3; Bos_d4, Bos_d5, Bos_d6, Bos_d8 and lactoferrin) are suitable for use as a sensitization markers equally as well as extracts in in vitro molecular (serological) diagnostics. Developed method of protein extraction from native sources will allow to investigate the diversity of protein composition of different commercially available food products that could be useful in correction of diet plans of allergic persons.

LBTP1856 | Food allergy profiles observed within ethnic group populations in West Birmingham and Sandwell, UK

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Background: Studies in America have shown that there are differences in food allergy profiles seen in African American, Latino and white populations but there is a paucity of data for the UK. The population within the West Birmingham and Sandwell area in the UK is ethnically diverse so data were collected to ascertain any differences between the ethnic groups regarding allergenic foods.

Method: Data on the ethnicity of paediatric allergy patients and their food allergies seen by a paediatric allergy dietitian at Sandwell General and City Hospitals were collected for 6 months in 2018.

Results: Data were collected on 221 patients and 13 ethnicities. Only milk was divided into IgE mediated and non IgE mediated (See table). Nuts, milk and egg were the top three allergens in all ethnic groups. The most common nut allergy across all the groups was peanut, except for Black Afro-Caribbean where it was cashew. Egg was the commonest allergen in Black African and white European children. The most common food allergy for white British children was non IgE mediated cow's milk allergy whereas for Bangladeshi children it was jointly fish and peanut, for Black Afro Caribbean it was cashew and for Indian, Pakistani and Black Afro Caribbean it was egg.

Milk allergy (IgE and non IgE) was common in all ethnicities, except white British, there was more IgE mediated than non-IgE mediated milk allergy.

Conclusion: There were differences in the most common food allergens between ethnic groups. This may be a reflection of the types of foods eaten within these communities but may also reflect weaning and genetic differences. This would need to be explored further. A nut or milk allergy featured in the top 3 food allergies in the majority of the ethnic groups. Egg featured in the top 3 food allergies for all groups. The ethnically diverse population means it would be potentially be useful to develop more culturally appropriate dietetic resources, and in relevant languages.