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Background: Efficacy and safety of slow oral immunotherapy (SOIT) is not yet clear, especially regarding tolerance acquisition.

Methods: We recruited 32 cow's milk (CM) allergy confirmed by oral food challenge (OFC). Twenty-five subjects were enrolled as SOIT group, and remaining 7 were as control. The inclusion criteria were as follows; (1) CM allergy without anaphylaxis confirmed by OFC just before the trial, and (2) children >4 years. In SOIT group, they were asked to take small amount of CM at home after the OFC. The initial dose was about 1/4 of the threshold eliciting positive objective symptoms, and it was built up to 200 mL CM depends on the symptoms (build up phase). After reaching 200 mL, they were asked to take 200 mL CM daily until the asymptomatic duration lasting for more than 3m (maintenance phase). The subjects, who completed maintenance phase, underwent OFC to confirm the tolerance acquisition after the cessation of CM ingestion for 2w (confirm-OFC). In control group, they had eliminated CM completely and underwent the confirm-OFC after 9.8 ± 2.9 m (mean \pm SD). We investigated the endpoints (adverse reactions, medical treatments, results of confirm-OFC, and laboratory findings), prospectively.

Results: In SOIT group (n = 25) and control group (n = 7), the average age was 6.6y and 4.7y, respectively. The average threshold was 52 mL and 17 mL, and the CM specific IgE was 17.6 Ua/mL/9.9 Ua/mL, respectively. The average period of build up and maintenance phases in SOIT group was 80d (n = 25) and 98d (n = 15), respectively. The frequency of adverse reactions in all of build up (1973d) and maintenance phases (2924d) were 13.5% (mild symptoms)/2.3% (moderate symptoms) and 1.7% (mild)/0.3% (moderate), respectively. No patient had administered adrenaline during SOIT. Fifteen subjects in SOIT and 7 in control underwent the confirm-OFC. In SOIT, 8 subjects (53.3%) passed the confirm-OFC, whereas 2 (28.6%) passed in control. There was no statistically significant difference regarding tolerance acquisition between these 2 groups ($P = 0.277$).

Conclusions: This study suggests that SOIT for about 1/2 year induces desensitization effectively for CM allergy without severe adverse reactions. Further and longer study would be required to prove accelerated tolerance acquisition by SOIT.

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Factors Associated with Development of Food Allergy in Liver-Transplanted Children

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Background: The development of food allergy (FA) after transplantation has been described mainly about liver transplantation in children (*Pediatr Allergy Immunol.* 2009; 20: 741–747). It has been becoming important issue in this population. Although tacrolimus immunosuppressive therapy has been considered a significant risk factor (*J Allergy Clin Immunol.* 2011; 127: 1296–1298), other risk factors are not identified yet. This study was undertaken to evaluate the risk factors other than tacrolimus immunosuppressive therapy.

Methods: This study was a retrospective analysis of pediatric liver transplant recipients in our hospital. We reviewed the medical records of all patients who underwent liver transplantation during study period. Data collected including preceding-hepatic diseases, the number of previous surgeries, age at liver transplantation and etc.

Results: Between November 2005 and May 2010, 106 children received liver transplantation. The most common indication for liver transplantation was biliary atresia (BA; 47 patients, 44.3%). The other conditions were: congenital metabolic diseases in 27 patients, fulminant hepatic failure in 19, liver

cirrhosis in 6, congenital absence of portal vein in 3, congenital hepatic fibrosis in 2 and hepatic tumor in 2 patients. After transplantation, all the patients received immunosuppressive therapy based on tacrolimus regimen. Fifteen patients (10 female and 5 male) developed new-onset FA (14.2%). The average age at transplantation was 10 months and FA has been developed within 2 years (median 11 months, IQR, 4.5–19.0). Eleven patients with BA (23.4%) and 4 patients with the other conditions (6.8%) developed new-onset FA ($P = 0.023$). Among the patients who developed FA, the number of previous surgeries was significantly higher in patients with BA ($P = 0.008$).

Conclusions: New-onset food allergy after liver transplantation is now becoming a significant problem. We observed a trend toward an excess of FA in patients with BA compared to patients with other indications for liver transplantation. Patients with BA received surgical operations in several times before liver transplantation. Frequent operations might add some stimulation to generate new-onset FA and should be considered as a susceptible subgroup that requires specific attention.

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Recurrent Wheezing in Infancy: Epidemiological Changes Between EISL Phase i and iii

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Background: Prevalence of allergic diseases has increased in the last years. Data on recurrent wheezing (≥ 3 episodes) in infancy is scarce. The aim of this study was to verify changing in prevalence of recurrent wheezing infants in the south of Brazil.

Methods: Cross-sectional study using a standardized and validated questionnaire (EISL: *Estudo Internacional sobre Sibilancias em Lactantes*) with questions: Has your baby had wheezing or whistling in the chest area or bronchitis in the first 12 months of life? Has your baby had 3 or more wheezing episodes in the first year of life? Parents of infants, ages 12 to 15 months that attended to Health Centers for routine immunization were interviewed between August 2005 to December 2006 (EISL Phase I) and September 2009 to September 2010 (EISL Phase III). Categorical variables are shown as proportion and differences verified by chi-square test, and continuous variables were expressed as mean \pm SD and analyzed by Student *t* test.

Results: Three thousand three parents of infants answered questionnaire in the EISL Phase I, and 45.4% had had at least one wheezing episode; 50.7% were male, and 22.6% had recurrent wheezing episode starting at 5.5 ± 3.1 months. Five years later, in the EISL Phase III, 1003 parents participated in the survey: 40.6% had at least one wheezing episode ($P = 0.46$), 51.1% were male, and 19.8% had recurrent wheezing ($P = 0.1$) starting at 6.1 ± 3 months ($P = 0.06$).

Conclusions: Recurrent wheezing in infancy is highly prevalent and starts early in life. In our population, recurrent wheezing rates did not modify in the time period of study.

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Asthma Admission Rates in Germany: An Analysis of the Nationwide DRG-Statistic of the Year 2009

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Background: Within the OECD Health Care Quality Indicators (HCQI) Project up to 21 countries participated in calculations of 6 indicators on care for chronic conditions. Those so-called Health Promotion, Prevention and Primary