

Improved labelling for consumers with food allergy

In this issue of the Journal, Begen et al.¹ have looked at whether the 2014 European allergen information legislation changed how UK consumers with food allergy behaved when eating out. The legislation aimed to improve the allergen information for non-prepacked foods. This is key given that allergen avoidance is critical to avoid allergic reactions.² They used both in-depth interviews and surveys with consumers with food allergy before and after it was introduced. The results were generally positive with better availability of information and awareness of food allergy in eating out venues. However, inconsistencies in the implementation of the legislation were highlighted. Good to see a thorough evaluation of new legislation, now the circle needs to be closed with further efforts to more effectively implement the new law.

Continuing on the food allergy theme, Burton et al.³ have explored how IgE and mast cells might directly promote accumulation of type 2 innate lymphoid cells (ILC2) at intestinal mucosal surfaces. These ILC2 cells are able to produce large amounts of IL-4 and IL-13 which may promote the sensitization and effector phases of the allergic response in collaboration with mast cells. Within a murine model, food-induced ILC2 cells were reduced in mice deficient in IgE or mast cells. Furthermore, activated ILC2 cells were able to increase the magnitude of anaphylactic reactions.

The annual pollen season provides a natural experimental model to investigate the impact of allergen exposure on the development of sensitization and clinical allergy. In a Finnish population-based study (N = 5920), Pyrhonen et al.⁴ have investigated whether antenatal exposure dog or cat during the pollen season effects the likelihood of developing sensitization. They observed a seasonal peak incidence of sensitization to cat in children whose 11th fetal week occurred in June (Figure 1); for dog, it was April and June. Children with only cat exposure were nearly threefold more likely to develop cat sensitization, when they were also exposed to high pollen levels antenatally, this increased to eightfold compared with children without these exposures. Similar results were seen for dog sensitization. The authors speculate that pollen exposure in early pregnancy deviates the developing immune system towards Th2 response promoting the development of sensitization to other allergens.

Recently, in the Journal of Allergy and Clinical Immunology, Valovirta and colleagues have published results of the Grazax Asthma Prevention (GAP) study (I was one of the local investigators in the

trial).⁵ This landmark 5-year trial assessed whether sublingual grass pollen immunotherapy (SLIT) in children (N = 812) could prevent the development of asthma during 3 years of therapy and for a further 2 years after cessation. The study found no difference in time to onset of asthma, as defined by pre-specified asthma criteria. Unfortunately, these criteria did not reliably define asthma with participants meeting the criteria early in the trial having no ongoing asthma symptoms or treatment; others not reaching the criteria were diagnosed and treated for asthma by their physicians. SLIT therapy markedly reduced the risk of experiencing asthma symptoms or using asthma medication both during the entire trial and during the two final years off therapy suggesting that this approach is effective in preventing the development of asthma (Figure 2). Equally importantly, the trial also provides evidence for the long-term effectiveness of grass pollen SLIT for hayfever after 3 years of therapy in children.

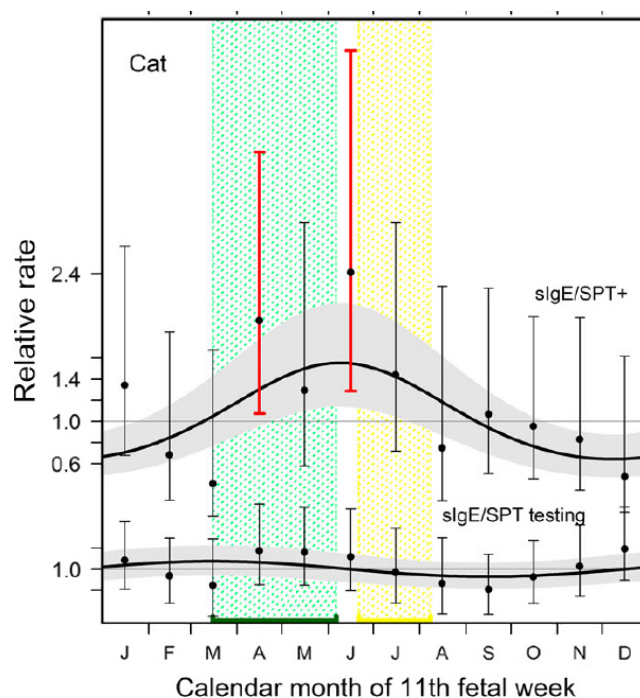


FIGURE 1 Relative rates of testing for cat allergy and positive test results among the entire study population by the month of the 11th fetal week. Dots from Cox regression model with vertical bars indicate 95% confidence intervals. Continuous lines are smoothed models with shaded areas representing 95% confidence bands. Pollen seasons are indicated by green and yellow [(see Figure 2 in Pyrhönen et al. (pp. 306–316)]

Caption to cover illustration: The cover image, by Y. J. Jeon et al., is based on the Original Article Type III interferons are critical host factors that determine susceptibility to Influenza A viral infection in allergic nasal mucosa, DOI: 10.1111/cea.13082.

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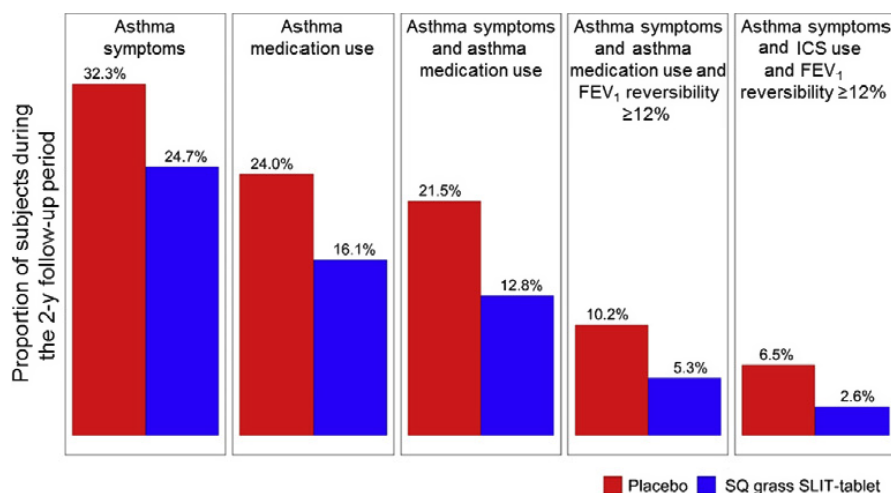


FIGURE 2 Sublingual grass pollen immunotherapy reduced asthma symptoms and treatment in the two years after three years of therapy (reproduced with permission from Valovirta et al. (E))

And finally, abstract submission for the 2018 BSACI meeting is now open. This year the meeting is in Telford, 30 September to 2 October 2018 with more information at <http://bsacimeeting.org/>. The submission deadline is Monday, 23 April 2018.

G. Roberts^{1,2,3}

¹Faculty of Medicine, Clinical and Experimental Sciences and Human Development and Health, University of Southampton, Southampton, UK

²NIHR Southampton Respiratory Biomedical Research Unit, University Hospital Southampton NHS Foundation Trust, Southampton, UK

³The David Hide Asthma and Allergy Research Centre, St Mary's Hospital, Isle of Wight, UK

Correspondence

G. Roberts, Paediatric Allergy and Respiratory Medicine (MP803), Clinical & Experimental Sciences & Human Development in Health Academic Units University of Southampton Faculty of Medicine & University Hospital Southampton, Southampton, UK.

Email: g.c.roberts@soton.ac.uk

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