

A new approach to specific IgE testing, asthma and auto-injectors in schools

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In this issue, Bjerregaard et al. assess whether type 2 airway inflammation is associated with an increased risk of future virus-induced asthma exacerbations.¹ Individuals with asthma were followed for 18 months with further assessments being made when they had exacerbations. A total of 22 of 81 exacerbated, and 15 had a respiratory virus detected at that point. Having a baseline sputum eosinophil count of >1% and a exhaled nitric oxide of >25 p.p.b. increased the risk of a virus-induced exacerbation (hazard ratios 7.6, 95% confident interval 1.6-35.2, and 3.4, 1.1-10.4, respectively) (Figure 1). So it would seem that type 2 airway inflammation is a risk factor for virus-induced exacerbations of asthma, as well as any exacerbation². This may explain why therapies that reduce airway inflammation reduce the likelihood of virus-induced exacerbations.³

I read with interest the paper by Pinto et al. given our perinatal growth data from the Southampton Women's Survey.⁴ Pinto et al.⁵ have assessed the association between being born large gestation age (LGA) and the development of asthma in children within the PIAMA birth cohort. With 1608 participants, they had the power to

look separately at atopic and non-atopic children. While there was no overall association, being overweight at age 8 years and LGA was significantly associated with asthma compared to non-LGA, non-overweight children (adjusted odds ratio 7.04; 95% confidence interval 2.2-24). Looking across the literature, the relationship between obesity and atopic disease seems to be unclear⁶ but perhaps these children form a unique asthma subphenotype with little connection with atopy.

Moving away from asthma, Sievers et al.⁷ have look at the how a polymer coated silicon microarray might simultaneously detect specific IgE and IgG4 to food allergens. They have compared the new approach to the ImmunoCAP and ImmunoCAP ISAC systems.⁸ In general, the new system seems to work as well as the ImmunoCAP system in terms of absolute results and sensitivity (Figure 2).

Lastly, congratulations to the Anaphylaxis Campaign, Allergy UK, the British Society for Allergy and Clinical Immunology (BSACI), the British Paediatric Allergy Immunity and Infection Group (BPAIIG) and the Royal College of Paediatrics and Child Health (RCPCH) for

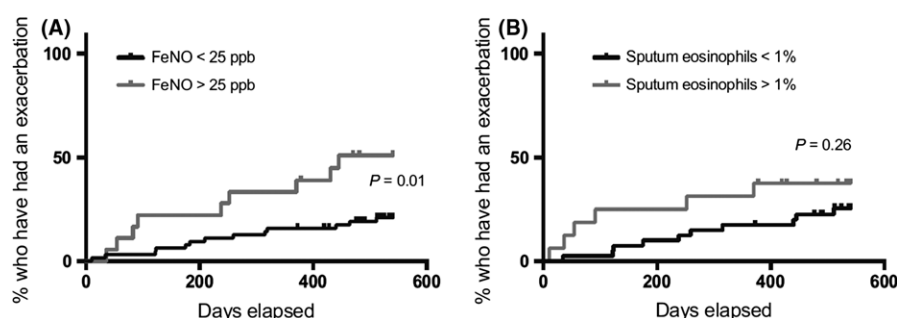


FIGURE 1 Relationship between baseline exhaled nitric oxide (FeNO) and sputum eosinophils with viral induced exacerbations of asthma [see figure 3 in Bjerregaard et al. (pp. 1007–1013)]

Caption to cover illustration: IL4R α and ADAM33 as genetic markers in asthma exacerbations and type-2 inflammatory endotype (Image courtesy of H. Sunadome et al.).

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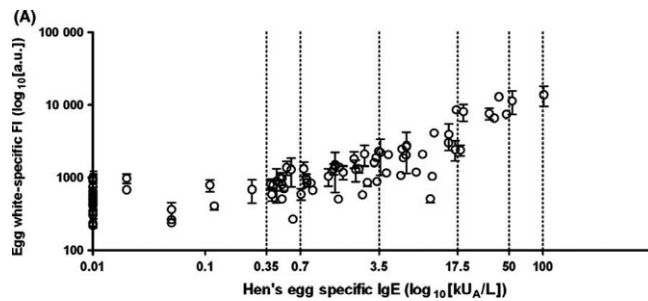


FIGURE 2 Correlation of hen's egg-specific IgE determined on ImmunoCAP and mean fluorescence measured with the copoly (DMA-NAS-MAPS) silicon array. [see figure 1 in Sievers et al. (pp. 1057-1068)]

driving a campaign that has successfully led to the amend of the UK Human Medicines Act to allow schools to keep spare adrenaline auto-injectors for emergency use.

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