Atoms

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SIDS, PACIFIERS AND CO-SLEEPING

In November 2005 the American Academy of Pediatrics released its new recommendations regarding sudden infant death syndrome (SIDS).[1] Most of the Academy's 11 recommendations are straightforward and based upon substantial evidence—for example, infants should be placed on their backs to sleep, and parents should avoid soft bedding. However, Fleming, Blair and McKenna reflect on the two most controversial recommendations, that infants be given pacifiers once breast feeding is established and co-sleeping is to be avoided. We have discouraged pacifiers for the past few decades, and co-sleeping is steeped in culture. Is their reliable, valid, and high-quality data to suggest a link between use of pacifiers (protective), co-sleeping (risk-factor) and SIDS – Fleming and colleagues are not so sure.

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ASTHMA: THE DAYS OF TITRATING THE DOSE HAVE RETURNED

I remember vividly struggling with theophylline levels during my training and early years as an attending/consultant. We could never get the level correct during acute management—it was always too low, or staggeringly high. Outpatient management was just as complicated—was it the dose or was it compliance? It was the rare child who came to A&E with an appropriate theophylline level. With the introduction of inhaled corticosteroids (ICS) it seemed simpler, dosing was easier, and few patients required high doses. However, over the past few years all of the asthma guidelines have stressed the need to titrate the dose of ICS to the lowest possible amount that results in symptom control. In this issue, Paton and colleagues from Glasgow, describe the consequences of high dose inhaled fluticasone with respect to adrenal function. Almost 40% of children prescribed a daily dose >500 μg/day had impaired responses. Since it is likely that adherence was not perfect in this group, a greater percentage of children have impaired function. George Russell, an acknowledged world expert on this issue, comments on the use of high dose ICS in children.

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UTIS: ARE COMPLICATIONS RELATED TO SPECIFIC ORGANISMS?

In a brief, but noteworthy report from Israel, Friedman and colleagues describe a significantly greater percentage of urinary tract anomalies in children with non-*Escherichia coli* than *E coli* pathogens (43.8% vs 5.6%). Factors independently associated with non-*E Coli* pathogens included younger age, previous antibiotic use, and underlying urinary tract anomalies. Although residual confounding may be a problem in the analysis, as we tease out which children should have an extensive evaluation following UTI, it appears that the pathogen may be an important factor.

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BEYOND IVIG FOR KAWASAKI DISEASE

The important role of intravenous gammaglobulin in the treatment of Kawasaki disease is well established. Intravenous immunoglobulin (IVIG) clearly reduces coronary artery disease. However, I continue to believe that we will reflect on our use of IVIG in Kawasaki and other diseases and wonder why we could not develop more specific antidotes. We have tended to use IVIG in any disease in which children are not doing well. In this issue, Professor Senzaki from Japan explores the role that matrix metalloproteinases (MMPs) play in the pathophysiology of Kawasaki disease. My first reaction to seeing the article – what are MMPs? Professor Senzaki explains.

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PREVENTING ALLERGY

I have been fascinated by the hygiene hypothesis and other explanations for the increasing prevalence of atopy. Is the increase real or imagined? After not being sure for many years, I am now convinced that the increased reporting of atopic disease does not simply reflect detection bias, but an actual increase in food allergy, asthma and atopic dermatitis. Although breast-feeding remains the single most important "intervention" to prevent the development of atopy, many infants are not breast-fed. In a double-blind, randomised, placebo-controlled trial that was conducted in Italy, 259 high risk infants, who were bottle fed, received either a formula consisting of extensively hydrolysed cows' milk whey protein and a prebiotic mixture of 90% short chain galacto-oligosaccharides and 10% long chain fructo-oligosaccharides, or just the extensively hydrolysed formula. The prebiotic mixture has been demonstrated to produce intestinal flora similar to what is found in breast-fed infants. Over the course of 6 months, 9.8% of infants developed atopic dermatitis in the prebiotic group compared with 23.1% in the control group—a highly significant difference. These authors are to be congratulated for conducting a double-blind trial, in an important area of concern, and by choosing a control group that has already been demonstrated to reduce the occurrence of atopic disease in at-risk infants. By choosing an appropriate control group they have reduced the necessity for a follow-up clinical trial.

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Reference

1 **American Academy of Pediatrics**. Policy Statement. The changing concept of sudden infant death syndrome: diagnostic coding shifts, controversies regarding the sleeping environment and new variables to consider in reducing risk, *Pediatrics* 2005;**116**:1245–55.