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LUNG ALERT

When should we use inhaled steroids in 'asthmatic' infants?

▲ Bisgaard H, Hermansen MN, Loland L, *et al*. Intermittent inhaled corticosteroids in infants with episodic wheezing. *N Engl J Med* 2006;**354**:1998–2005

It is unclear when to treat wheezy infants with inhaled corticosteroids. In this single centre, prospective, double blind, randomised, placebo controlled trial, the authors hypothesised that the development of asthma in infants is predated by episodes of wheezing during early life. Furthermore, treatment with inhaled corticosteroids early in life would prevent the establishment of asthma as defined by persistent wheezing.

One month old infants born to mothers with a history of asthma were recruited. If the infants developed an episode of wheezing lasting more than 3 days they were randomised to receive either inhaled budesonide (400 µg/day) or placebo for 2 weeks. The primary end point was the number of symptom-free days, with a secondary end point being the development of persistent wheezing. Follow up was for 3 years.

Of 411 infants enrolled, 294 were randomised (149 to budesonide and 145 to placebo). There was no difference in the number of symptom-free days between the groups (83% budesonide v 82% placebo, absolute difference 1%, 95% CI –4.8 to 6.9), and similar numbers of infants had to discontinue the study because of persistent wheezing (24% budesonide v 21% placebo, hazard ratio 1.22, 95% CI 0.71 to 2.13). The mean duration of a wheezing episode was identical in both groups (10 days) and symptoms were likewise similar.

The authors conclude that the early use of intermittent inhaled corticosteroids does not reduce progression to persistent wheezing (or asthma) and, moreover, does not lead to any short term improvement in episodes of wheezing. Therefore, with current evidence, the use of this treatment strategy cannot be recommended. However, an accompanying editorial emphasises that it is not possible to exclude a beneficial effect in a smaller subgroup, and the lack of effect on symptom duration may reflect the introduction of steroids after 3 days of illness.

C Church

Specialist Registrar, Papworth Hospital, Cambridge, UK; colinchurch@doctors.org.uk