airwaves

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BRADYKININ SUPPRESSES ALLERGEN INDUCED NO

Patients with atopic asthma have increased levels of exhaled nitric oxide (FE_{NO}), reflecting inducible nitric oxide synthase (iNOS) expression. In contrast, bradykinin activates constitutive NOS. In this issue of *Thorax* Ricciardolo and colleagues describe the mechanism of this effect of bradykinin inhalation after allergen challenge, before and after pretreatment with an NOS inhibitor. They show for the first time that bradykinin inhalation suppresses allergen induced FE_{NO} during the late phase in atopic asthma, while the NOS inhibitor does not potentiate this effect. This suggests that bradykinin could switch off the increased NO production during an exacerbation and thus an acute inflammatory mediator may actually be used to reduce the severity of an asthma exacerbation. What an interesting novel therapeutic target!

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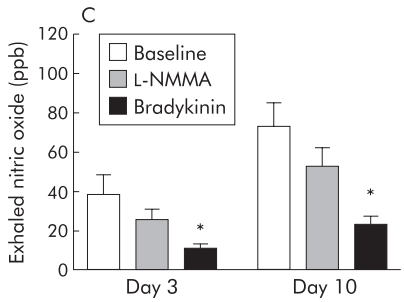

NON-INVASIVE VENTILATION AND FREQUENT EXACERBATORS

Some patients with COPD are prone to frequent exacerbations, and this group of patients is most likely eventually to present to hospital with acute respiratory failure. Non-invasive ventilation (NIV) has been shown to be effective in treating this group in hospital, although the rates of hospital readmission are also high. The role of domiciliary NIV has been more controversial, although there is benefit reported with respect to improvement in health status and need for hospital care. In this issue of *Thorax* Tuggey and colleagues describe the use of NIV in a selected, although small, group of COPD patients with repeated admissions with respiratory failure. There was a reduction in hospital admission and days in hospital, but the primary outcome was a significant reduction in health care costs with the use of home NIV. These findings will be very useful in the design of adequately powered randomly controlled studies of long term NIV in chronic hypercapnic respiratory failure.

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INFLUENZA VACCINATION IS SAFE

Influenza vaccination is currently recommended in patients with chronic respiratory disease. However, uptake of the vaccine is not as high as it should be, as there is some concern among patients and healthcare professionals that vaccination could trigger exacerbations of asthma or COPD. In this issue of *Thorax* Tata and colleagues describe a cohort study of the incidence of exacerbations in older people with asthma or COPD after influenza vaccination using the UK General Practice Research Database. Although there was an increase in the recording of diagnoses of asthma and COPD and corticosteroid prescriptions on the day of vaccination, there was no increase in adverse respiratory outcomes up to 2 weeks after vaccination. However, the vaccination coverage was only 40% in this study, so more effort is required to promote the uptake of influenza vaccination by older people.

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COMMUNITY PHARMACISTS CAN IMPROVE ASTHMA CONTROL

Considerable emphasis has been placed on the effectiveness of self-management programmes in asthma. The recent SIGN/BTS guidelines on asthma management point out that there is no information on the role of community pharmacists in self-management programmes, even though pharmacists have recently expanded their role. Barbanel and colleagues report a randomised controlled study of a self-management programme delivered by a community pharmacist with basic asthma training. The results showed that, after a 3 month follow up period, asthma symptom scores improved in the intervention group compared with a control group that received no input from pharmacists. Further longer term studies are now required, integrating the role of the pharmacist with other healthcare professionals involved in asthma management.

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ENCOURAGING SPIROMETRIC TESTING IN PRIMARY CARE

Spirometry now plays an important role in the management of COPD, and in recent years the use of spirometric testing in primary care has been advocated. However, there have been concerns as to how spirometric tests performed in primary care match those performed in hospital pulmonary function laboratories. In this month's issue of *Thorax* Schermer and colleagues compare the spirometric results obtained in primary care, where staff underwent a spirometric training programme, with those performed in secondary care. The authors found that the readings in primary care were slightly but significantly higher, although the quality of the spirometric readings was similar. They conclude that, as the agreement was limited, these measurements should not be used interchangeably between primary and secondary care.

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