

COPD EXERCISE TESTS AND BRONCHODILATORS

In chronic obstructive pulmonary disease (COPD), lung function and physical activity are not particularly related and thus exercise tests, especially walking tests, are commonly used for assessment.

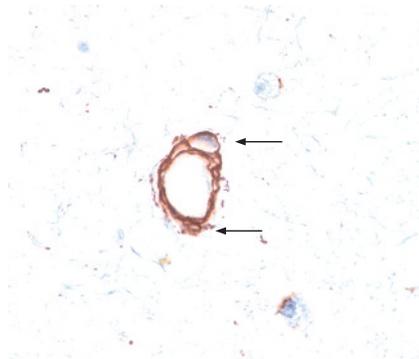
However, as Morgan and Singh point out in their editorial, specific walking tests measure different physiological activities. Pepin and colleagues report on the practical issue of which walking test is more responsive to bronchodilatation. The results show that the endurance shuttle walk is more responsive than the standard 6 min walking test. Morgan and Singh describe the various types of exercise tests available for assessing patients with COPD and walking tests, such as the endurance shuttle, are more useful and appropriate than the older cycling tests.

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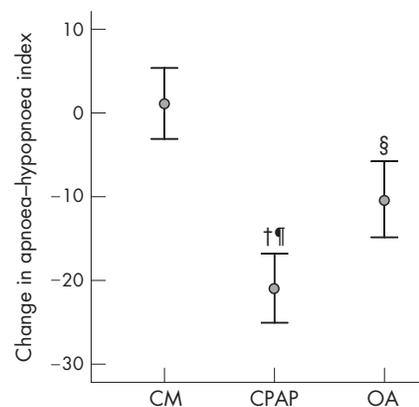
VASCULAR "SPROUTS" IN ASTHMA?

Asthma is associated with airway remodelling and also increased airway vascularity. Vascular "sprouts" have been reported, which may be newly forming airway vessels and indicators of the enhanced remodelling process. Feltis and colleagues describe angiogenic modulation by inhaled corticosteroids. The study shows that after 3 months' of treatment with high dose inhaled fluticasone, angiogenic remodelling is down-regulated, with reduction of airway vascular endothelial growth factor (VEGF) and less vascular sprouts. The significance of these interesting findings is discussed by Knox and colleagues in the accompanying editorial, which reviews some of the mechanisms underlying angiogenesis in the airways and also the effect of other asthma treatments.

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Immunohistochemical staining of vascular "sprouts". Endobronchial biopsy specimens obtained from asthmatic subjects were immunostained with collagen type IV antibody to highlight the endothelial basement membrane of blood vessels located within the lamina propria. "Sprouts" were defined as the unusual vessel-like spaces located within the lining of the vessel wall (arrows).



Comparison of changes in apnoea-hypopnoea index between groups between baseline and 10-week reassessment. † $p < 0.001$, CM vs CPAP; § $p < 0.001$ CM vs OA; †† $p < 0.05$, CPAP vs OA.

EARLY DETECTION OF CYSTIC FIBROSIS

Early detection of cystic fibrosis (CF) is important in infants. In this issue of *Thorax*, Lum and colleagues describe the use of the lung clearance index, which is derived from the multiple-breath washout (MBW) technique, together with the raised lung volume rapid thoraco-abdominal compression (RVRTC) technique. Both techniques have been shown to be more useful in detecting early lung function abnormalities than spirometry. The authors describe measurement lung function in 39 infants with CF and showed that structural and physiological changes occur early in CF and that these two techniques do enhance monitoring the very early stages of the disease.

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THREE TREATMENTS FOR OBSTRUCTIVE SLEEP APNOEA

There is agreement that patients with severe obstructive sleep apnoea (OSA) should be managed with continuous positive airway pressure (CPAP), but there is less evidence on the optimal treatment for patients with mild to moderate OSA. One of the problems with CPAP treatment is patient compliance with the equipment, but there are now other interventions available for treating this milder group. In this month's *Thorax*, Lam and colleagues describe a randomised study of three non-surgical treatments (CPAP, oral appliance (OA) and conservative measures (CM)) in patients with mild to moderate OSA. Overall CPAP produced the best improvement in physiological, symptomatic and quality of life measures, with the oral appliance being slightly less effective. Both of these treatments were more effective than conservative measures that included weight loss. This study shows that active intervention with either CPAP or an oral device is required and that oral appliances need to be developed that reduce the apnoea index to the same degree as CPAP.

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NEW IN THORAX FOR APRIL

Following on from the recent series on exacerbations on asthma and COPD, in this month's *Thorax* we publish the first in the series on exacerbations in patients with CF and bronchiectasis, together with a short introduction to the series (See pages 288 and 360). I am sure you will very much enjoy these articles and use them as comprehensive reference articles on the topics.