airwaves

Wisia Wedzicha, *Editor in Chief*

PHYSICAL ACTIVITY REDUCES MORTALITY IN COPD

In a previous *Thorax* paper, Garcia-Aymerich and colleagues showed that Spanish patients with moderate to severe COPD who had levels of physical activity equivalent to 1 hour daily had a lower risk of hospital admission for COPD exacerbations. In this month's *Thorax* the same group report a 20 year follow up study of 2386 COPD patients from Copenhagen. For the first time they show that patients with low, moderate, and high levels of physical activity have a lower risk of all-cause mortality and respiratory mortality than patients with very low activity. In this study, a relatively low level of physical activity—equivalent to walking or cycling for 2 hours/week or more—was associated with a 30–40% reduction in the risk of hospital admission due to COPD and respiratory mortality. The authors discuss some of the mechanisms underlying this observation including peripheral muscle function and systemic inflammation. Activity is also reduced during exacerbations and my group reported that patients with a history of frequent exacerbations have a faster decline in outdoor activity, suggesting that COPD exacerbations may also be a link between physical activity and mortality. However, the simple message from this paper is that a relatively low level of activity that is easily recommended to patients may be beneficial in COPD.

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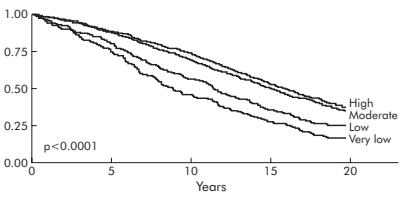

Kaplan-Meier curve of time to death (all-cause mortality) according to level of regular physical activity.

COUGH AND SPUTUM NEUTROPHILS IN ASTHMATIC CHILDREN

Cough is an important symptom in more severe and unstable asthma in children, but less is known about the effects of cough in milder asthma. Li and colleagues report a study where they objectively measured cough frequency and related this to airway inflammation. The results show that even children with mild asthma have increased cough frequency when stable, and cough frequency was found to be related to increased sputum neutrophil count. As McDougall and Helms conclude in their accompanying editorial, this study adds to the emerging body of evidence that many asthma and wheezing illnesses in both children and adults are due to neutrophilic inflammation, which is an important target for novel interventions.

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TB: WITH AND WITHOUT HIV?

The response of HIV patients to anti-tuberculosis (TB) treatment is usually satisfactory, although many HIV patients require concurrent highly active antiretroviral therapy (HAART). There is little information on adverse effects in co-infected individuals, especially on HAART, even though it is assumed that there is a higher rate of adverse effects to TB treatment in this group. In this month's *Thorax* Breen and colleagues show that, despite TB treatment being associated with more serious side effects in HIV co-infected patients than in patients with TB alone, this did not lead to more treatment interruptions. These findings were also not related to the level of immunosuppression or the nature of the HAART regimen.

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OB AND CT SCANNING

Longer term survival after lung transplantation is limited by the development of obliterative bronchiolitis (OB), and earlier diagnosis, detection and treatment of OB may improve outcome after transplantation. In this issue of *Thorax* de Jong and colleagues describe the use of CT scanning for early detection of OB. The authors showed that inter-observer and intra-observer agreement were good for composite and air trapping CT scores. There was a significant association between lung function and the composite score, suggesting that the composite CT scoring system could be used in the early detection of OB in patients undergoing lung transplantation.

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LENGTH OF PULMONARY REHAB COURSES?

Pulmonary rehabilitation (PR) is one of the most effective interventions for patients with COPD with improvements in exercise capacity and health status, but implementation is still not optimal and programmes are oversubscribed. The usual length of a PR programme is 6–8 weeks but, if resources are limited, shorter programmes may be appropriate. In this issue of *Thorax* Sewell and colleagues describe a randomised controlled trial comparing a standard 7 week programme with a shorter 4 week PR programme and then follow up to 6 months. The results show that a shortened 4 week programme had similar benefits to the standard length programme, and the authors conclude that these results will enable PR to be offered to more COPD patients disabled with dyspnoea.

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