Highlights from this issue

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The Triumvirate

NEVER THE TWAIN…

Emmeline Pankhurst (1858–1928), leader of the British suffragette movement, stated that "window-breaking, when Englishmen do it, is regarded as honest expression of political opinion. Window-breaking, when Englishwomen do it, is treated as a crime'. This political paradox is as diverse as the difference between cardiology and respiratory medicine. However, Jaime Corral and colleagues (***see page 361***) have bridged this gap. As part of a clinical trial, the effect of NIV (n=71), CPAP (n=80) and lifestyle modification (n=70) on transthoracic echocardiographic changes between baseline and 2 months were compared in patients with obesity hypoventilation syndrome. NIV was more effective than CPAP and lifestyle modification in improving pulmonary hypertension, left ventricular hypertrophy and functional outcomes. Only NIV treatment led to a significant improvement in exercise capacity.

BEST PROTECTION…

Elizabeth Cady Stanton (1815–1902), an American suffragist, quoted that the "best protection a woman can have…is courage". Although courage is important, neutrophils play a vital protective role, especially in lung defence and repair. Jorge Blázquez-Prieto and colleagues (***see page 321***) investigated the role of neutrophils in mice with ventilator induced lung injury and patients with acute respiratory distress syndrome. Following lung damage, the mice were rendered neutropenic and treated with matrix metalloproteinase-9. Comparative analysis was made with the bronchoalveolar lavage fluid from ARDS patients with or without neutropenia. Neutropenic mice showed delayed repair and higher levels of tumour necrosis factor-α, interferon-γ and macrophage inflammatory protein two and absence of MMP-9, which was similar to the neutropenic ARDS patients. Treatment with exogenous MMP-9 reduced tissue damage without modifying cytokine concentrations.

TO BE TREATED LIKE A DOORMAT…

Dame Cicely Isabel Fairfield DBE (1892–1983), a British journalist, said that 'I only know that people call me a feminist whenever I express sentiments that differentiate me from a doormat'. Although it is unlikely that Zhang Wang and colleagues (***see page 331***) performed microbiome studies on a doormat, the authors investigated sputum microbiome temporal variability and dysbiosis in COPD exacerbations. The authors performed 16S ribosomal RNA survey of microbiome on 716 sputum samples at baseline and exacerbations from 281 COPD patient. Microbial dysbiosis at exacerbations was present in 41% of samples and associated with increased exacerbations. The variation of beta diversity significantly decreased in those subjects with frequent historical exacerbations.

MOSAIC MOVEMENT…

Alice Paul (1885–1997), strategists of the campaign for the 19th Amendment to the US Constitution, said that "movement is a sort of mosaic. Each of us puts in one little stone, and then you get a great mosaic at the end.' Movement in the form of physical activity is the central part of the study by Elaine Fuertes and colleagues (***see page 376***). The authors investigated the relationship between physical activity and lung function as part of the European Community Respiratory Health Survey cohort. 3912 participants were recruited with ages ranging between 27–57 years and 39–67 years. Mean duration between assessments was 11.1 years. An active person was one undertaking physical activity ≥2 times and ≥1 hour per week. Physical activity frequency and duration increased over the study period. FEV1 and FVC were higher among those who changed from inactive to active during the follow-up and who were consistently active, compared with those consistently non-active. Leisure-time physical movement is associated with higher FEV1 and FVC over a 10 year period, but not with FEV1 and FVC decline.

DISCRIMINATORY ILLNESS

Gender discrimination is not restricted to politics or employment but is also a manifestation of disease. Lymphangioleiomyomatosis (LAM) is one such discriminatory disorder – affecting women almost exclusively, with a peak age of onset in the mid thirties. Rapamycin can slow the decline in lung function in women with LAM but this medication has a range of unpleasant side effects including oral mucositis, diarrhoea and menstrual irregularities. In this issue of Thorax (***see page 369***), Janet Bee and colleagues (from the National Centre for LAM in Nottingham) describe the findings of a cohort study which studied the efficacy and side effects of rapamycin over 1–6 years. They found that rapamycin arrests the decline in lung function in some, but not all, women. Side effects, but not efficacy, were related to serum rapamycin levels. Women whose treatment was delayed had a poor response. Still, better late than never. It took just over 800 years from Magna Carta until women were allowed to vote…

HAZARDOUS LUNG FUNCTION

The second decade of the twentieth century was a dangerous time. Many suffragettes suffered abuses such as force feeding and a number died for the cause – including Emily Davison who fell under the King's horse at the 1913 Epsom Derby. Thankfully, no such dangers attend pulmonary function testing. In this issue of the journal (***see page 385***), Hull and colleagues describe safety data from 20 years of pulmonary function testing at a single institution (the Royal Brompton Hospital). The reassuring news is that only 1 in every 10 000 tests led to a hospital admission or emergency treatment. The the most common side effect was syncope and, mercifully, there were no deaths. So thankfully it is safer in the Brompton than in Holloway…

UNEXPECTED CAUSE OF PLEURAL EFFUSION

This month's teaser image (***see page 393*** – figure 1) is a pleural effusion with a hidden cause. See p.x to test your diagnostic skill and lateral thinking.