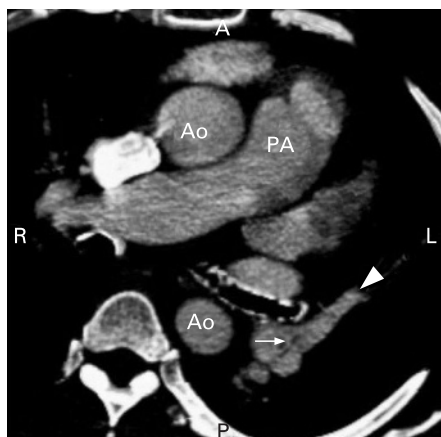


Lung epithelium, RSV and T cells

Respiratory viruses are important triggers of exacerbations of asthma and chronic obstructive pulmonary disease and interact with lung epithelial cells. Respiratory syncytial virus (RSV) infection is a key factor in the pathogenesis of asthma exacerbations. In this issue of *Thorax*, Wang and colleagues report important findings showing that healthy lung epithelial cells are potent inhibitors of T cell activation and proliferation and associated cytokine secretion. However, this regulatory function is lost or reduced depending on the severity of the RSV infection. In the accompanying editorial, Smyth provides a very clear account of airway epithelial function and describes the importance of the findings of Wang and colleagues and other researchers. She concludes, however, that “in health, the airway epithelium is like a duck—calm on the surface but paddling furiously underneath”. **See pages 277 and 283**

TV in childhood causes asthma?

Environmental exposures associated with asthma have not been fully evaluated. Relationships have been described between asthma and obesity and some of this effect may be mediated by sedentary behaviour and thus reduced physical activity. This may be particularly important in early childhood, when asthma development is critical and sedentary behaviour is common. In this month's *Thorax*, Sherriff and colleagues report a study of children without a history of wheeze at 3.5 years of age who were followed until 11.5 years.



Pulmonary artery dissection. See Images in *Thorax* page 368.

Increased television viewing at 3.5 years was associated with increased prevalence of asthma at 11.5 years and children who watched television for more than 2 h daily were almost twice as likely to develop asthma. This effect was not gender-specific and independent of body mass index. However, this is a very complex topic and we need more information about how physical activity affects asthma development and whether specific interventions that increase activity modulate the natural history of asthma. **See page 321**

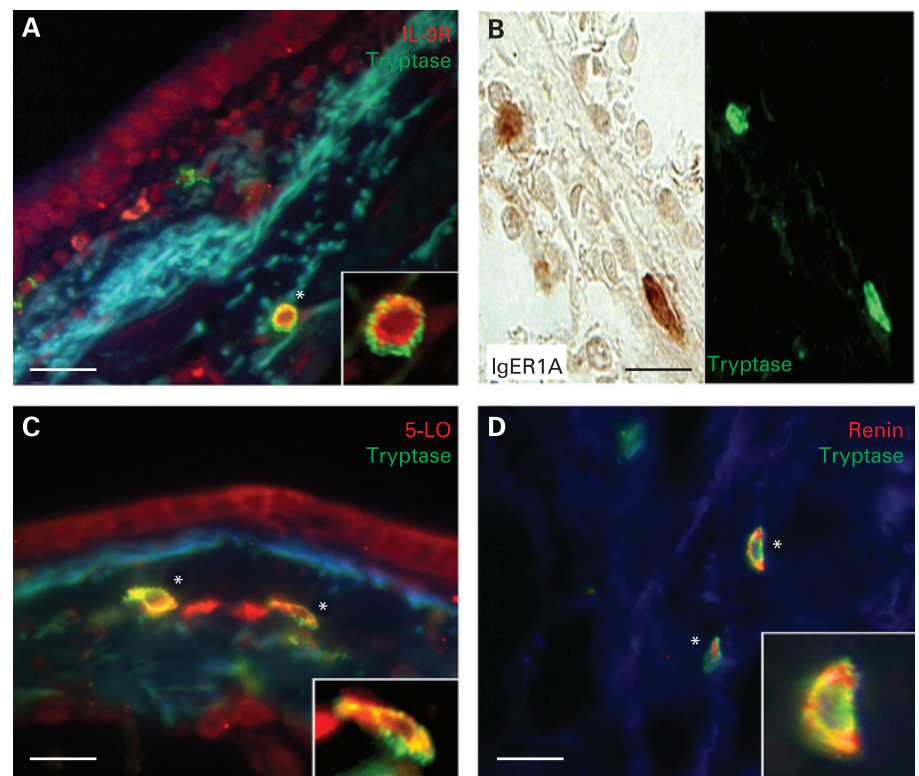
Respiratory work disability

More attention has been paid recently to the issue of respiratory work disability. In this issue of *Thorax*, Torén and colleagues studied both a general population cohort and patients with asthma. As expected, they show that respiratory work disability is common and that exposure to biological dust, mineral dust or gases or fumes predicted respiratory disability. In the asthma cohort, women showed a greater disability risk. In the accompanying editorial, Harber

discusses the importance of work-related respiratory disability and concludes that clinicians caring for patients with respiratory disease need to pay more attention to the extent of respiratory disability and start interventions to lessen the impact of disability on the patient. **See pages 280 and 339**

Novel mast cell sub-populations in the lung

Mast cells are multipotent cells that originate in the bone marrow and then travel to many different organs, including the lung. Recently there has been renewed interest in the role of mast cells in allergic and non-allergic respiratory disease. In this month's *Thorax*, Andersson and colleagues describe new sub-populations of mast cells in different lung compartments with specific functional characteristics, for example mast cells in the pulmonary vessels are larger than in the small airway walls. In the accompanying editorial, Bradding discusses aspects of mast cell function and the importance of these novel mast cell phenotypes. **See pages 278 and 297**



Immunofluorescence micrographs showing examples of tryptase-positive mast cells co-positive for other selected mast cell related-molecules. (A) Interleukin-9 receptor (IL9R) in small airways, (B) IgE receptor 1 α (Ig ϵ R1 α) in bronchi, (C) 5-lipoxygenase (5-LO) in small airways, and (D) renin in alveolar septa.