

## Journal club

### Autoimmune disorders increase the risk of developing pulmonary embolism

This large retrospective study analysed the effect of 33 autoimmune disorders on the risk of developing pulmonary emboli (PE). Five hundred and fifteen thousand one hundred and thirty-seven patients in Sweden with an autoimmune disorder initially diagnosed on hospital admission were identified and retrospectively analysed for PE, between 1964 and 2008.

Risk of PE increased across all age groups in the first year post admission. Risk gradually decreased after hospitalisation but remained above the control group at 10 years post admission. Length of stay did not affect the risk. The thrombotic risk may have been related to active inflammation, side effects of the autoimmune treatment and/or immobilisation. The study postulated that the fall in risk over time was attributable to the inflammatory activity of autoimmune conditions decreasing with effective treatment. Overall risk of PE was lower during 1989–2008 than during 1964–1988. Interestingly, no difference was seen after the introduction of low molecular weight heparin in the 1990s.

This was a large study, comparing autoimmune disorders to the general population. However, acute hospital data was used, potentially skewing the study population towards severer cases. There was also no data on thrombo-prophylaxis or treatment.

The study suggests that autoimmune disorders are associated with a particularly high risk of PE and should be considered hypercoagulable disorders; this risk decreases but persists over time. Thrombo-prophylaxis should be considered in these patients, potentially for some time post discharge. However, further studies to assess its effectiveness are warranted.

► **Zoller B**, Li X, Sundquist J, *et al*. Risk of pulmonary embolism in patients with autoimmune disorders: a nationwide follow-up study from Sweden. *Lancet* 2012;**379**:244–9.

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