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IN BRIEF

IMAGING

Colour Doppler ultrasonography in inflammatory disease

The knees of patients with inflammatory arthritis ($n=39$) or severe osteoarthritis ($n=72$) were examined using colour Doppler ultrasonography (CDUS), and synovial fluid white blood cell count was used to confirm inflammatory status. Patients with inflammatory arthritis had significantly higher CDUS synovitis scores (mean 5.3, range 3–9) than patients with noninflammatory disease (mean 3.3, range 0–8; $P<0.01$). However, high synovial activity could be seen in some patients with osteoarthritis but no inflammation. A definitive threshold value separating inflammatory from noninflammatory disease could therefore not be determined.

Original article Beitinger, N. *et al.* The value of colour Doppler sonography of the knee joint: a useful tool to discriminate inflammatory from non-inflammatory disease? *Rheumatology (Oxford)* doi:10.1093/rheumatology/ket136

RHEUMATOID ARTHRITIS

Air pollution does not correlate with autoantibodies

Previous studies have suggested correlations between the development of rheumatoid arthritis (RA) and exposures to smoking and air pollution. To investigate the latter potential link, RA-related autoantibodies and swollen or tender joints were assessed in people without RA who are first-degree relatives of patients with RA (and are therefore at increased risk of developing the disease). The results were compared with ambient air pollution monitoring data for participants' areas of residence. No correlations between these signs of RA and levels of air pollution were found.

Original article Gan, R. W. *et al.* Relationship between air pollution and positivity of RA-related autoantibodies in individuals without established RA: a report on SERA. *Ann. Rheum. Dis.* doi:10.1136/annrheumdis-2012-202949

INFLAMMATORY MYOPATHIES

Pulmonary function correlates with clinical parameters

Pulmonary function tests were performed in 38 children (aged 6–23 years) with definite or probable idiopathic inflammatory myopathy. A total of 37% (14/38) of patients had impaired lung function, defined as a total lung capacity or diffusing capacity $<80\%$ of the predicted. These patients were more likely than the other study participants to express myositis-specific antibodies, have a higher disease activity score (total or muscle-specific), elevated levels of some muscle-derived enzymes and neopterin, and an older age and shorter duration of untreated disease at diagnosis.

Original article Prestidge, A. *et al.* Pulmonary function tests in idiopathic inflammatory myopathy: Association with clinical parameters in children. *Arthritis Care Res. (Hoboken)* doi:10.1002/acr.22014

OSTEOARTHRITIS

Specialized footwear improves knee loading

Wearing a flat, flexible 'mobility shoe' for ≥ 6 h per day, 6 days per week for 24 weeks reduced knee adduction movements in patients with osteoarthritis of the knee, whether the patient was wearing the mobility shoe (18% reduction, $P<0.001$) or their own shoes (11% reduction, $P=0.002$) compared with their own shoes at baseline. Specialized footwear might therefore be used to alter gait mechanics.

Original article Shakoar, N. *et al.* Improvement in knee loading after use of specialized footwear for knee osteoarthritis: Results of a 6-month pilot investigation. *Arthritis Rheum.* doi:10.1002/art.37896