

Nature Reviews Rheumatology 10, 382 (2014); published online 10 June 2014;
 doi:10.1038/nrrheum.2014.93;
 doi:10.1038/nrrheum.2014.92;
 doi:10.1038/nrrheum.2014.94

IN BRIEF

INFECTIO

Controversy over accuracy of TB tests in JIA

Tuberculin skin test (TST) and ELISPOT/T. SPOT.TB are two techniques frequently used to detect latent tuberculosis infection (LTBI), but doubts remain about their accuracy. The efficacy of these tests for detecting LTBI was the focus of an observational prospective longitudinal study in 24 patients with juvenile idiopathic arthritis receiving methotrexate therapy. Patients underwent both tests and were clinically and epidemiologically assessed for LTBI at baseline and after 3 and 12 months. Immunosuppressive therapy doubled the prevalence of LTBI (20.8% at baseline vs 41.6% at end of study) and epidemiological history was an important factor (relative risk 2.0). However, despite agreement between the tests being low at both 3 and 12 months, no evidence of superiority of one test over the other was observed, and in only one patient with positive T. SPOT.TB was the test useful in early detection of LTBI.

Original article Sztajn bok, F. *et al.* Tuberculin skin test and ELISPOT/T. SPOT.TB in children and adolescents with juvenile idiopathic arthritis. *Pediatr. Rheumatol. Online J.* doi:10.1186/1546-0096-12-17

OSTEOARTHRITIS

Physical therapy does not improve hip OA

Despite inconclusive evidence regarding the efficacy of physiotherapy for patients with osteoarthritis (OA) of the hip, this strategy is still frequently recommended in clinical guidelines. A randomized, placebo-controlled trial of 102 patients with painful (≥ 40 mm on a 0–100 mm visual analogue scale [VAS]), radiographically confirmed hip OA assessing the effect of 10 physiotherapy sessions over 12 weeks on pain and function raises further doubts about the value of this intervention for these patients. When comparing sham treatment ($n=53$) with active treatment ($n=49$) at 13 and 36 weeks, no statistically significant differences were found in pain levels, assessed on a 100 mm VAS, or in function scores, assessed using the WOMAC index.

Original article Bennell, K. L. *et al.* Effect of physical therapy on pain and function in patients with hip osteoarthritis: a randomized clinical trial. *JAMA* doi:10.1001/jama.2014.4591

RHEUMATOID ARTHRITIS

PPAD is not the link between RA and periodontal disease

Porphyromonas gingivalis peptidylarginine deiminase (PPAD) has been implicated in the initiation of rheumatoid arthritis (RA) owing to its capacity to generate citrullinated neoantigens and for its ability to autocitrullinate. However, a study looking at PPAD from *P. gingivalis* revealed a truncation at the N-terminal of active PPAD that prevents citrullination, so citrullination only occurred on full-length recombinant PPAD expressed in *Escherichia coli* and not on the truncated form. Furthermore, in patients with RA, levels of antibodies against PPAD did not correlate with disease activity and were decreased in those with periodontal disease (compared with healthy individuals). Together, these findings rule out PPAD autocitrullination as the link between PD and RA but reveal a potential protective effect of anti-PPAD antibodies for the development of RA-associated periodontal disease.

Original article Konig, M. F. *et al.* Defining the role of *Porphyromonas gingivalis* peptidylarginine deiminase (PPAD) in rheumatoid arthritis through the study of PPAD biology. *Ann. Rheum. Dis.* doi:10.1136/annrheumdis-2014-205385