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IN BRIEF

RHEUMATOID ARTHRITIS

Viral immunity affects RA treatment

Cytomegalovirus (CMV) latency is associated with severity of joint destruction in rheumatoid arthritis (RA). A prospective observational cohort study ($n=71$ at baseline, $n=43$ at 21–24 week follow-up) of patients beginning DMARD therapy for early RA found a correlation between the change in 28-joint disease activity score (DAS28) and peripheral blood mononuclear cell (PBMC) cytokine production profiles in response to incubation with human CMV and Epstein–Barr virus. The study validates the idea that immune response profiling could be used to predict patient treatment outcome.

Original article Davis, J. M. *et al.* Immune response profiling in early rheumatoid arthritis: discovery of a novel interaction of treatment response with viral immunity. *Arthritis Res. Ther.* doi:10.1186/ar4389

THERAPY

Pre-natal glucocorticoids and childhood mental health

Pre-natal glucocorticoid exposure affected the mental health of children ($n=37$) at 8 years of age, compared with controls ($n=185$), but effects were not significant by 16 years of age, according to the analysis of a longitudinal cohort. The propensity-scored method and mixed effects model using data collected by teachers and parents indicates that general psychiatric disturbance and inattention (symptoms of attention deficit hyperactivity disorder) are associated with exposure to low or infrequent doses of pre-natal glucocorticoids.

Original article Khalife, N. *et al.* Prenatal glucocorticoid treatment and later mental health in children and adolescents. *PLoS ONE* doi:10.1371/journal.pone.0081394

RHEUMATOID ARTHRITIS

RA complications after arthroplasty

Relative to osteoarthritis (OA), patients with rheumatoid arthritis (RA) are more at risk of developing complications, including dislocation and infection, following total hip and knee arthroplasty, respectively. Patients with RA were identified from eligible hip arthroplasty recipients ($n=43,997$; 3%) and knee arthroplasty recipients ($n=71,793$; 4%). Dislocations were reported in 2.45% of patients with RA and only 1.21% with OA; infections occurred in 1.26% of patients with RA and only in 0.84% with OA.

Original article Ravi, B. *et al.* Patients with rheumatoid arthritis are at increased risk for complications following total joint arthroplasty. *Arthritis Rheum.* doi:10.1002/art.38231

OSTEOARTHRITIS

Exercise reduces risk of total hip replacement

Minimizing the risk of total hip replacement is a good reason for patients with osteoarthritis (OA) to engage in exercise-based treatment, according to a long-term follow-up of a randomized trial. In patients with OA ($n=109$) who received a combination of education and exercise therapy there was 41% survival of native hips after 6 years, compared with only 25% hip survival for individuals who only received patient education; importantly, the median time to total hip replacement was 5.4 years and 3.5 years, respectively.

Original article Svege, I. *et al.* Exercise therapy may postpone total hip replacement surgery in patients with hip osteoarthritis: a long-term follow-up of a randomised trial. *Ann. Rheum. Dis.* doi:10.1136/annrheumdis-2013-203628