

IN BRIEF

IMAGING

Data from the Better Anti-Rheumatic Pharmacotherapy (BAROFT) research group suggest that early bone loss measured by digital X-ray radiogrammetry (DXR) is an independent predictor of radiological joint damage in patients with rheumatoid arthritis, and could be used to help make treatment decisions. The investigators showed that, of 166 patients who had started therapy with their first DMARD, those with at least 0.0048 g/cm² change in DXR-determined hand bone mineral density over 1 year had a significantly greater incidence of progressive joint damage than patients without this degree of hand bone loss.

Original article Forslind, K. *et al.* Hand bone loss measured by digital X-ray radiogrammetry is a predictor of joint damage in early rheumatoid arthritis. *Scand. J. Rheumatol.* doi:10.1080/03009740902939376

THERAPY

A meta-analysis by Bischoff-Ferrari and colleagues has shown that high-dose supplemental vitamin D therapy, with or without calcium, reduces the risk of falls among older individuals to a similar level as active forms of vitamin D. Patients aged over 65 years who were taking 700–1000 IU per day of supplemental vitamin D had 19% fewer falls than those not taking vitamin D supplements. This is comparable to the 22% reduction in falls seen with active forms of vitamin D. In addition, the investigators found that serum concentrations of 25-hydroxyvitamin D over 60 nmol/l were associated with 23% fewer falls, whereas no benefit was seen with serum levels lower than 60 nmol/l.

Original article Bischoff-Ferrari, H. A. *et al.* Fall prevention with supplemental and active forms of vitamin D: a meta-analysis of randomised controlled trials. *BMJ* 339, b3692 (2009).

EXPERIMENTAL ARTHRITIS

Investigators in Korea have identified a novel sulfur compound found in garlic, known as thiacremonone, which they suggest has potential as a future therapy for rheumatic disease. Their study showed that direct application of thiacremonone 1–10 mg/kg into the plantar surface of the hind paw in mice lead to a reduction in carrageenan-induced and mycobacterium-induced inflammatory and arthritic responses. Levels of inducible nitric oxide and cyclo-oxygenase 2 were also reduced. The investigators further suggest that the sulfur compound exerts its effects via nuclear factor- κ B blockade through interaction with the sulfhydryl group of nuclear factor- κ B molecules.

Original article Ban, J. O. *et al.* Anti-inflammatory and arthritic effects of thiacremonone, a novel sulfur compound isolated from garlic via inhibition of NF- κ B. *Arthritis Res. Ther.* 11, R145 (2009).