GLOSSARY

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CRITERIA

Composite clinical response criteria comprising swollen joint count, tender joint count, acute phase response, physician and patient response assessment and health assessment questionnaire; level of improvement is reported as an ACR20 (20%), ACR50 (50%) or ACR70 (70%) response

Folic acid reduces the efficacy of methotrexate

A post-hoc analysis of two phase III, randomized, controlled studies has suggested that folic acid decreases the efficacy of methotrexate in patients with rheumatoid arthritis (RA). Folic acid is used to reduce the side effects of methotrexate, but there has been controversy as to whether concomitant use of folic acid reduces the efficacy of the drug.

Khanna and colleagues pooled the results of two 52-week randomized controlled trials of leflunomide in RA patients—a US trial and a multinational European trial—where methotrexate was used as a comparator. The authors analyzed the two studies to evaluate the effect of folic acid on methotrexate at 52 weeks. In the US trial, daily leflunomide was compared with placebo and weekly methotrexate, and patients received 1 mg of folic acid either once or twice daily; 179 rheumatoid-factor-positive patients received methotrexate, of whom 175 received concomitant folic acid. In the multinational trial, daily leflunomide was compared with weekly methotrexate, but no placebo was used, and patients only received folic acid if they developed drug-related side effects; 489 rheumatoid-factor-positive patients received methotrexate, of whom 175 received concomitant folic acid. To account for differences in the baseline characteristics between the two studies, propensity-score adjustment was used.

At 1 year, the proportion of patients achieving a 20%, 50% and 70% response according to AMERICAN COLLEGE OF RHEUMATOLOGY CRITERIA was on average 17%, 14% and 12% higher, respectively, in the non-folic-acid group compared with the folic-acid group. Patients in the US trial (receiving folic acid) had a lower incidence of liver-function abnormalities, but, surprisingly, had a higher incidence of symptomatic side effects, which might reflect differences in adverse-event reporting between the two continents. The authors note that there are limitations to the study, including lack of *a priori* hypothesis. The results of this trial should provide impetus for future studies regarding the effect of folic acid on methotrexate in RA.

Rachel Murphy

Original article Khanna D *et al.* (2005) Reduction of the efficacy of methotrexate by the use of folic acid: post hoc analysis from two randomized controlled studies. *Arthritis Rheum* 52: 3030–3038

Increased precision in MRI assessment of cartilage morphology

Quantitative MRI of articular cartilage has made it possible to determine cartilage morphology with a high level of accuracy and reproducibility, but has so far been limited to a field strength of 1.5T. Eckstein *et al.* wondered whether the improved signal-to-noise ratio and spatial resolution obtainable with 3.0T MRI would result in more precise measurements of cartilage morphology. They also investigated the quantitative effect of a smaller than standard partition volume in conjunction with the increased field strength.

Magnetic resonance images of one knee of each of 30 female subjects aged 45 years or over were obtained using 1.5T and 3.0T scanners. Half the participants had mild-to-moderate osteoarthritis; half were healthy controls. Scans were obtained at 1.5T with a 1.5mm partition thickness (standard), at 3.0T with a 1.5mm partition thickness, and at 3.0T with a 1.0mm partition thickness. Proprietary software was used to determine the volume, thickness, and surface area of the cartilage plates. Measurements at the different field strengths correlated well (correlation coefficients ranged from 0.9 to 0.99), but precision error was smallest with a 1.0mm partition thickness at 3.0T (2.1% and 2.0% for cartilage volume and thickness, respectively).

The authors conclude that imaging a 1.0mm partition thickness at 3.0T might increase detection of changes in cartilage and determine whether treatment with structure-modifying drugs is effective.

Jim Casey

Original article Eckstein F *et al.* (2005) Accuracy and precision of quantitative assessment of cartilage morphology by magnetic resonance imaging at 3.0T. *Arthritis Rheum* 52: 3132–3136

Clofazimine for cutaneous lesions in SLE

“Clofazimine is indicated as a therapeutic option for lupus patients with exclusively cutaneous lesions and with contraindications to chloroquine,” claim investigators in Brazil. The claim follows a comparative trial of clofazimine with the antimalarial drug chloroquine diphosphate.