GLOSSARY

**NONMYELOABLATIVE
HEMATOPOIETIC STEM-
CELL TRANSPLANTATION
(NHSCT)**

A two-step procedure comprising a conditioning regimen that eliminates self-reactive lymphocytes, followed by isolation and *ex vivo* expansion of CD34⁺ autologous hematopoietic stem cells for later reinfusion

A treatment for refractory systemic lupus erythematosus

Treatment with immunosuppressive therapies results in remission for most patients with systemic lupus erythematosus (SLE), but there is a subset of patients whose disease remains refractory to existing treatments. Morbidity and mortality from active SLE remains high in such patients, and the search for safe and effective therapies to treat them is ongoing.

A US team has reported their experience of treating 48 patients who had severe, refractory SLE affecting their visceral organs, with salvage therapy comprising intensive immunosuppression plus NONMYELOABLATIVE HEMATOPOIETIC STEM-CELL TRANSPLANTATION (NHSCT). The team emphasized the importance of using SLE-specific eligibility criteria for NHSCT and an SLE-specific conditioning regimen designed for lymphoablation without myeloablation, rather than adapting a myeloablative protocol used to treat malignancy. The conditioning regimen comprised very high-dose cyclophosphamide plus equine antithymocyte globulin, which eliminates memory T lymphocytes. Patients were also given several prophylactic antibiotic and antiviral agents.

Outcomes for these initially very sick patients were encouraging: during follow-up (range 6 months to 7.5 years) the probability of 5-year survival was 84%, and of 5-year disease-free survival requiring only minimal immunosuppressive medication was 50%. Four patients never entered remission, of whom two subsequently died of SLE-related causes. After NHSCT, the time taken to enter remission varied (1–29 months), principally because of the need for gradual taper of pre-NHSCT steroids.

These results justify performing a definitive, randomized, controlled trial to compare NHSCT with standard care, say the authors.

Caroline Barranco

Original article Burt RK *et al.* (2006) Nonmyeloablative hematopoietic stem cell transplantation for systemic lupus erythematosus. *JAMA* 295: 527–535

Severe extra-articular rheumatoid arthritis is associated with noncardiac vascular disease

Patients with rheumatoid arthritis (RA) have higher cardiovascular mortality than the general

population. This could be attributable to disease-related factors such as the presence of chronic, systemic inflammation, and/or to treatment-related factors such as the accelerated atherosclerosis that can occur with corticosteroid use. The presence of severe extra-articular manifestations of RA has previously been linked with heart disease, and new reports suggest that these manifestations are also associated with noncardiac vascular disease.

A community-based, retrospective study of patient records from Olmstead County, MN, USA, identified 609 adults (445 women) diagnosed with RA between 1 January 1955 and 31 December 1994. The presence of severe extra-articular RA manifestations was a predictive factor for all subtypes of noncardiac vascular disease assessed, except for cerebrovascular disease. These associations persisted after adjustment for confounding variables. Being a smoker at diagnosis and male sex were predictive factors of peripheral arterial disease.

Evidence of a role for systemic inflammation in atherosclerosis and thromboembolism is accumulating. Some of the increased risk of vascular disease in RA patients is attributable to increases in inflammatory markers and T-cell activation, perhaps because of concomitant endothelial activation, but the relationship between systemic rheumatic disease and noncardiac vascular disorders should be investigated further.

Caroline Barranco

Original article Liang KP *et al.* (2006) Incidence of noncardiac vascular disease in rheumatoid arthritis and relationship to extraarticular disease manifestations. *Arthritis Rheum* 54: 642–648

Intra-articular injections show little effect in hip osteoarthritis

Few nonsurgical options are available for reducing pain and maintaining mobility of patients with hip osteoarthritis (OA). Intra-articular injections of corticosteroids or hyaluronic acid have shown limited efficacy in knee OA, although controversy still exists over the benefit of such treatments. Danish researchers, therefore, conducted a double-blind, randomized, controlled trial that compared ultrasound-guided, intra-articular injections of hyaluronic acid, corticosteroid,