weight was 2142 g and the mean APGAR scores at 5 and 10 min were, respectively, 8 and 8.

All the 26 patients with a normal arterial uterine Doppler ultrasound examination at the second trimester delivered uneventfully. There was only one premature delivery due to PROM in an SLE patient. The mean gestational age at delivery was 39 weeks, the mean birth weight was 3200 g and the mean APGAR scores at 5 and 10 min were, respectively, 9 and 10.

Although literature data addressing the role of uterine artery Doppler screening as predictor of poor outcome are contradictory [2–7], in agreement with Le Thi Huong et al.’s [1] result, our study confirms how pregnancy outcome of patients with abnormal uterine waves is worse when compared with a woman with normal Doppler. In fact, abnormal Doppler velocimetry was related to an increased prevalence of PROM, IUGR, maternal and perinatal complications (low birth weight and low APGAR score). Not surprisingly, due to the important role of vascular damage, apart from APS and SLE patients, Scl and BD patients were at very high risk as well.

In contrast to Le Thi Huong et al. [1] data and probably due to the lower number of patients examined, Doppler abnormalities were not associated with an increased rate of neonatal or fetal death.

In conclusion, it is our opinion that Doppler velocimetry should be considered as a reliable and useful tool to identify SLE and other CTD patients at higher risk in order to start a proper therapy.

The authors have declared no conflicts of interest.

G. Castellino, R. Capucci, M. Govoni, G. Mollica, F. Trotta

Department of Clinical and Experimental Medicine, Rheumatology Unit and Department of Obstetrics and Gynecology, University of Ferrara, Sant’ Anna Hospital, Ferrara, Italy

Accepted 12 May 2006

Correspondence to: G. Castellino.

E-mail: gabriella_castellino@yahoo.it


Successful treatment with leflunomide of arthritis in systemic sclerosis patients

Sir, Systemic sclerosis (SSc) is a connective tissue disease clinically characterized by different degrees of skin fibrosis and visceral organ involvement [1]. Joint involvement with severe synovitis during SSc is relatively uncommon. About 11% of SSc patients present with arthritis at disease onset [2], usually characterized by mono-oligoarthritis, responsive to steroid therapy [3].

In some patients, arthritis is more aggressive; it can become erosive, simulating classical rheumatoid arthritis [1, 2]. Since leflunomide has been usefully employed in rheumatoid arthritis and other autoimmune systemic diseases [4–6], we undertook a preliminary investigation of the efficacy of this drug in patients with SSc complicated by active arthritis.

Three women with SSc, classified according to preliminary ACR criteria [7], were treated with leflunomide at the standard dosage of 20 mg/day (Table 1). In all patients arthritis had been unresponsive to other therapeutic attempts, including steroids, methotrexate, cyclosporin A and penicillamine. In two patients (cases 1 and 3) the articular involvement was asymmetrical and non-erosive, whereas the third (case 2) showed symmetrical and erosive polyarthritis with the presence of serum rheumatoid factor. This patient may be better classified as SSc/rheumatoid arthritis overlap syndrome. In no case was renal and/or hepatic involvement observed before or after the treatment. Leflunomide was well tolerated in all cases; only one patient developed moderate diarrhoea, which disappeared with the reduction of the leflunomide dosage to 20 mg every other day, without any relapse of arthritis. After few weeks of treatment, we observed resolution in cases 1 and 2 and a significant improvement in articular involvement in case 3, with normalization of inflammatory parameters; these variations remained stable after 1 yr of follow-up (Table 1).

No significant modifications were observed for skin and visceral organ involvement in two of the three patients. Only one showed a reduction in the modified Rodnan skin score (from 25 to 14 after 1 yr of treatment) and a mild increase in lung carbon monoxide diffusion capacity (case 3).

Besides rheumatoid arthritis, leflunomide has been reported to be useful in some autoimmune diseases, such as systemic lupus erythematosus, Sjögren’s syndrome and Wegener’s granulomatosis [4–6]. Leflunomide is an isoxazole derivative with immunomodulating activity; it inhibits T-activated lymphocyte replication and reduces some cytokines, particularly IL-2 and TNF-α, that are probably involved in the early stages of scleroderma [8–10]. Many studies suggest that lymphocytes and cytokines play an important role in the pathogenesis of SSc; in particular, high levels of IL-2 and/or IL-2 receptor are observed in the early stages of the disease [9, 10]. According to its pharmacological activity, leflunomide could be usefully employed in SSc, particularly in patients with severe articular involvement.

In our patients, leflunomide was able to improve SSc-associated arthritis; it was well tolerated and in one case its efficacy persisted despite dosage tapering. Moreover, other SSc organ involvement remained stable in two cases, while skin sclerosis improved in the other one. On the whole, these data suggest the possible use of this drug in the SSc. This is the first study focusing on leflunomide in the treatment of SSc-associated arthritis; its actual efficacy should be ascertained in controlled trials including larger patient populations.
The authors have declared no conflicts of interest.

M. SEBASTIANI, D. GIUGGIOLI, E. VESPRINI, A. CARUSO, C. FERRI
Rheumatology Unit, University of Modena and Reggio Emilia and
1Rheumatology Unit, University of Pisa, Pisa, Italy
Accepted 8 November 2005

Correspondence to: C. Ferri, Cattedre e Servizio di
Reumatologia, Università di Modena e Reggio Emilia,
Policlinico di Modena, Via del Pozzo 71, 41100 Modena, Italy.
E-mail: cferri@unimo.it

   In: Koopman WJ, Arthritis and allied conditions. A textbook
   of rheumatology ;Vol. 2Philadelphia: Williams and Wilkins,
   1997;1433–65.

2. Ferri C, Valentini G, Cozzi F et al. Systemic Sclerosis Study Group of
   the Italian Society of Rheumatology (SIR-GSSSc). Systemic sclerosis:
   demographic, clinical, and serologic features and survival in 1012

3. La Montagna G, Sodano A, Capurro V, Malesci D, Valentini G. The
   arthropathy of systemic sclerosis: a 12 month prospective clinical and

4. Sanders S, Harisdangkul V. Leflunomide for the treatment of
   rheumatoid arthritis and autoimmunity. Am J Med Sci

5. Tam LS, Li EK, Wong CK, Szeto CC. Double-blind, randomized, placebo-controlled pilot study of leflunomide in systemic

   Maintenance of remission with leflunomide in Wegener’s granulomatosis.

7. Subcommittee for Scleroderma Criteria of the American Rheumatism
   Association Diagnostic and Therapeutic Committee. Preliminary
   criteria for the classification of systemic sclerosis (scleroderma).

8. Kraan MC, Smeets TJ, van Loon MJ, Breedveld FC, Dijkmans BA,
   Tak PP. Differential effects of leflunomide and methotrexate on
   cytokine production in rheumatoid arthritis. Ann Rheum Dis

   expression of intracellular cytokines and chemokine receptors in
   peripheral blood T lymphocytes from patients with systemic sclerosis.

    Elevation of soluble interleukin-2 receptor levels in the broncho-
    alveolar lavage from patients with systemic sclerosis. Rheumatol Int

    Elevation of soluble interleukin-2 receptor levels in the broncho-
    alveolar lavage from patients with systemic sclerosis. Rheumatol Int

BSR guidelines for TNF blockers in ankylosing spondylitis—how useful are they?

Sir, We are writing in response to the British Society of
Rheumatology (BSR) guidelines for prescribing tumour necrosis factor (TNF) blockers in adults with ankylosing spondylitis
(AS) [1]. There are several points that we would like to make.

The first issue relates to the ongoing reliance on the modified
treatment. They have largely been the criteria employed in trials