What Biochemical Markers are Best for Measuring the Extent of Disease in Patients with Sclerosis?

Patients with systemic sclerosis present a great many challenges to doctors, one of them being to find a way of accurately determining the extent of a disease which today is reliant on expensive invasive procedures. Another challenge is finding a parameter for disease activity that can be used to monitor efficacy of treatment.

In this issue, Majewski et al. (pp. 207–210) compare staging of disease in 13 patients with diffuse systemic scleroderma, 23 patients with limited systemic scleroderma, 7 with Raynaud’s phenomenon and 25 healthy controls. The strengths of this work are that the number of patients included in the study is high, staging has been performed carefully, and a broad range of parameters is studied.

The results show that soluble TNF-alfa-R1, sIL-2R and PIIINP were significantly elevated in patients compared with controls. These markers were also significantly more frequent among patients with diffuse disease compared with those with limited disease. TNF-alfa-R1 and PIIINP showed the best correlation to disease extent. TNF-alfa-R1 had the best clinical correlation with skin, muscle and lung involvement, and the parameter correlated with lung disease in systemic sclerosis. There were no correlations with arthralgia, duration of Raynaud’s phenomenon or duration of skin sclerosis. Interestingly, there was no correlation between the “immune markers” and ANA.

The conclusions drawn from this study indicate there may be an advantage in using new inflammation parameters – especially sTNF-alfa-R1 – to facilitate documentation of disease extent and – and perhaps more importantly – in monitoring the efficacy of the treatment. The well-known serological markers of ANA are less helpful. Further examination of these parameters during treatment is needed.

One word of caution though is that 3 out of 13 patients with systemic sclerosis did not have increased levels of TNF-alfa-R1 in serum. Thus, biology is never simply “black-or-white”.

Sunscreen’s and side effects

The dermatological community is making great efforts to advise on the dangers of sunlight. Next to avoidance of sun exposure, which Europeans find difficult to accept after a long, cold and wet winter, is advice on the use of sunscreens.

In this issue, Journe et al. describe the findings of the French Society of Photodermatology in a study of a group of 370 patients with suspected photodermatitis. They use an extensive panel of potential allergens. Photopatch testing was also performed. A total of 107 positive patch tests and 126 photopatch tests were found; 57 positive reactions (25.4%) – and not 15.4% as stated – of contact allergy were related to sunscreens; 41 of the group of patients with positive reactions (72%) were considered to have relevant contact allergy to sunscreens. The authors mention that 13 of the patients with allergy to sunscreens were also affected by polymorphous light eruption. Eight patients were allergic to several sunscreens.

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Eusolex 4360 was responsible for more than 50% of the photoaллерgic reactions and Eusolex 8020 for another 7/39 (Table IV). In France, Eusolex has therefore been removed from sunscreens but is still used in cosmetics and moisturizers. The French study documented only a few contact allergies to PABA, which is one of the significant allergens in the USA.

The authors underline the importance of photopatch testing in detecting relevant contact allergies. It should also be noted that 370 patients presented with suspected clinical photoallergy, which was confirmed in approximately 20% of cases; but what about the diagnosis of the remaining 80% of patients? Another report describing this group would be of interest. Whether polymorphic light eruption could be a clinical sign of photo-contact allergy requires further clarification.

Cultured skin grafting for diabetic ulcers

Conventional topical treatment of diabetic leg/foot ulcers is known to be unrewarding in the short term. In this issue, in an open study of 26 diabetic and 25 non-diabetic ulcers, Harvima et al. (p. 217) demonstrate that weekly grafting with allogeneic cultured keratinocytes led to healing within 100 days in all but one of the ulcers. Among the 25 non-diabetic ulcers, 5 did not heal within the same time period. Diabetic ulcers are more frequent on the feet than non-diabetic ulcers. Despite this fact, healing was seen although heel ulcers were more difficult to heal.

The authors used human epidermis on the foreskin of circumcised boys. It seems that fibroblasts, which are easier to grow than keratinocytes, may be just as effective as keratinocytes, and, if so, could bring about an important new treatment modality for skin ulcers.

A new standard therapy for nodular basal carcinoma?

The dermatologist is confronted with nodular basal carcinomas every day. What is the optimal treatment?

In this issue, (p. 204) Norwegian researchers document that 119 nodular basal cell carcinomas can be treated successfully without scar formation in 95% of patients when photodynamic therapy is given, including a 1-year observation period. Treatment includes slight curettage without local anaesthesia prior to treatment, and DMSO applied before the application of a 20% 5-aminolevulinic acid followed by exposure to light.

These results are comparable with those reported earlier. The acceptability of this treatment was high because of the absence of scars. However, 5% of the patients experienced a relapse within a year, manifested as lesions on the face, scalp and ears.

Photodynamic therapy could be an option even in nodular basal cell carcinoma. However, who will pay the costs of this treatment – compared with proper curettage and electrocautery – if lesions occur on the face, the scalp or the ears?