Biphasic expression of stromal cell-derived factor-1 during human wound healing

Chemokines such as SDF-1/CXCL12 not only regulate the distribution of invading leucocytes but also control tissue remodelling. Employing in situ hybridization, Toksoy et al. studied SDF-1/CXCL12 expression after artificial wounding of human skin. While it was evenly expressed by endothelial cells and fibroblasts in undisturbed skin, a remarkable spatial pattern became obvious after injury: SDF-1/CXCL12 was upregulated at the wound margins whereas it was completely suppressed in the fibrous neostroma that replaced the provisional matrix covering the initial wound defect. Altogether, the data suggest that SDF-1/CXCL12 exerts multiple functions during wound repair that include regulation of neoangiogenesis, fibroblast proliferation and epithelialization. Br J Dermatol 2007; 157:1148–84.

The role of filaggrin null alleles in hand eczema and contact allergy

Carriers of one of the variant filaggrin alleles strongly associated with atopic dermatitis, R501X and 2282del4, have varying degrees of impaired skin barrier. Genetic risk factors influence the risk of hand eczema, and an impaired skin barrier facilitates the penetration of contact allergens. Thus, a possible role of the variant alleles in the pathogenesis of hand eczema and contact allergy could be hypothesized. However, in this genetic-epidemiological study no association between the variant filaggrin alleles and hand eczema or contact allergy could be demonstrated. Br J Dermatol 2007; 157:1199–204.

MC1R genotype influences erythemal sensitivity to PUVA

Psoralen–ultraviolet A (PUVA) photochemotherapy is widely used to treat psoriasis and other common skin diseases. There are unpredictable interindividual differences in the acute erythemal effects of PUVA and its longer-term risk of skin cancer. Polymorphisms in the melanocortin 1 receptor (MC1R) have been associated with increased sensitivity to UV radiation and skin cancer risk. Smith et al. studied MC1R genotype in patients commencing PUVA and found that inheritance of the Val60Leu, Arg163Gln and multiple MC1R SNPs was associated with increased erythemal sensitivity. These data suggest that MC1R genotype influences PUVA sensitivity and increase our understanding of genetic factors that predict photochemotherapy responses. Br J Dermatol 2007; 157:1230–4.

The applicability and prognostic value of the new TNM classification system for primary cutaneous lymphomas other than mycosis fungoides and Sézary syndrome

Research in primary cutaneous lymphomas (PCL) has been hampered by inconsistent classifications and lack of a consistent system to define disease extent. Recently, a TNM classification for PCL other than mycosis fungoides and Sézary syndrome was proposed for consistent reporting of disease extent. Senff et al. tested the applicability and prognostic significance of this TNM classification on 300 patients with an indolent or aggressive type of cutaneous B-cell lymphoma, as recognized in the WHO–EORTC classification. The TNM system was found to be useful in documenting disease extent and showed prognostic significance in the aggressive, but not in the indolent, subgroups. Br J Dermatol 2007; 157:1205–11.

Isotretinoin therapy and the incidence of acne relapse

Isotretinoin is an effective treatment for severe nodular acne. However, data regarding its long-term benefits are lacking. Using a population-based cohort of 17,351 first-time isotretinoin users followed for up to 20 years, Azoulay et al. found that 41% of subjects experienced an acne relapse necessitating further treatment with an antiacne agent (isotretinoin or other). The authors also identified several predictors of experiencing an acne relapse. Thus, in view of isotretinoin’s relatively high relapse rate and important side-effects profile, these data could be of prognostic value to clinicians who treat patients with acne. Br J Dermatol 2007; 157:1240–8.