Immunostaining of dermal...

These results support a role for factor XIII, which is also commonly used for diagnostic fibromas. This mutation resulted in reduced expression of BCL2 in hair outer root sheath cells and with adalimumab response. These results in combination with functional assays indicate that BCL2 may be suppressed by anti–tumor necrosis factor treatment and describe a role for apoptotic balance in anti–tumor necrosis factor response in hidradenitis suppurativa. See page 574.

Factor XIII Implicated in Familial Dermatofibromas

The A subunit of the transglutaminase factor XIII gene F13A1 in two seemingly unrelated families. This mutation resulted in reduced fibrin crosslinking as well as increased human dermal fibroblast proliferation and collagen production, which are key features of dermatofibromas. Additional functional studies also suggested that this mutation leads to a conformational change that promotes α4-integrin binding, resulting in these defects. These results support a role for factor XIII, which is also commonly used for diagnostic immunostaining of dermatofibromas, in the pathobiology of some common benign fibrohistiocytic tumors. See page 624.

Link Between UV Damage and Immune Cell Recruitment in Rosacea

Endothelial cell proliferation, epidermal hyperplasia, vascular dilatation, and inflammation characterize the fixed centrofacial erythema of rosacea, which is commonly exacerbated by UV radiation. Kulkami et al. demonstrated that the antimicrobial peptide LL-37 enables increased expression of adhesion molecules in response to UVR-induced double-stranded RNA release. Mechanistically, LL-37 and double-stranded RNA bind and activate endothelial cells, affect adhesion molecules, and induce several innate immunity signaling pathways, resulting in leukocyte transmigration and ultimately inflammation in rosacea. These studies, which were confirmed in a mouse model, shed light on the mechanisms underlying this photosensitive skin disease and highlight potential points for therapeutic intervention such as manipulation of LL-37 or adhesion molecule interactions. See page 645. Commentary, see page 521.

Itch Contributes to Mental Health Issues in Dermatology Patients

On the basis of the data from a multicenter, cross-sectional, observational study of 4,624 patients with dermatological disease and healthy controls from 13 European countries, Dalgard et al. reported that the link between mental health problems and skin disease is stronger for patients who experience itch. Increased depression, suicidal ideation, and economic difficulties were significantly associated with itch in patients with skin disease, and quality of life was more impaired in patients with itchy skin disease than in patients with skin disease without itch or healthy controls, underscoring the need for proactive multidisciplinary management of itch in these patients. See page 568.

Chronic Pruritus Impacts on Health Care Costs

On the basis of patient-reported costs, Luk et al. estimated that patients with chronic pruritus had an annual median total cost of $1,067, an annual median total direct cost of $286, and total annualized opportunity cost of $662. The median total direct costs and median over-the-counter topical costs were higher in nonwhites than in whites, whereas total prescription oral medication costs were lower for nonwhites. Total annualized costs were also significantly associated with increasing itch severity. These findings confirmed the economic burden of chronic pruritus on patients, identified over-the-counter therapies as important drivers of health care cost, and found that racial factors influence this economic burden. See page 699.

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