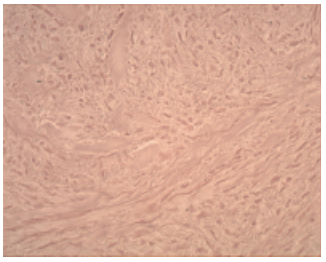
Research Snippets

Upregulation of the NNP-1 gene (novel nuclear protein-1, D21S2056E) in keloid by cDNA microarray and *in situ* hybridization



An understanding of the pathophysiology of keloid can help define the most appropriate treatment. Na *et al* investigated expression patterns of genes in keloids and adjacent normal skins using cDNA microarray and *in situ* hybridization for the purpose of defining the genes involved in keloid. From this study, 9 genes in keloid tissue were distinct from the adjacent normal skin tissue. Na *et al* focused on NNP-1 gene, and selected to do *in situ* hybridization study for its specific changes. From these results, they suspected the NNP-1 gene had strongly involved in the development of keloid.

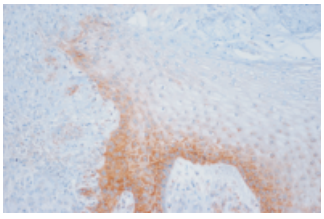
Na G-Y, Seo S-K, Lee S-J *et al*, *Upregulation* of the NNP-1 (novel nuclear protein-1, D21S2056E) gene in keloid tissue determined by cDNA microarray and *in situ* hybridization. *Br J Dermatol* 2004; **151**: 1143–1149.

Anti-nucleosome antibody is a major autoantibody in localized scleroderma

It has been hypothesized that anti-histone antibody (Ab) is induced by nucleosome or native chromatin as immunogens in localized scleroderma (LSc). Anti-nucleosome Ab was more frequently detected in 82% of LSc patients than anti-histone Ab (53%). No patients had anti-double stranded DNA (dsDNA) Ab. Nucleosome-restricted Abs, i.e., Abs that react with the whole nucleosome particle but not with its individual components (histones and dsDNA) were also present in 35% of LSc patients. The high prevalence of anti-nucleosome Ab in LSc indicates that the Ab is a major autoantibody of this disease.

Sato S, Kodera M, Hasegawa M *et al*. Antinucleosome antibody is a major autoantibody in localized scleroderma. *Br J Dermatol* 2004; **151**: 1182–1188.

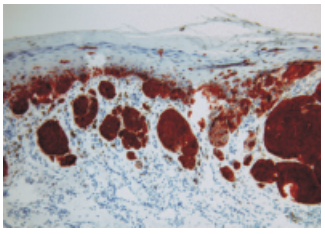
Epithelial tissue-type plasminogen activator expression, unlike that of urokinase, its receptor, and plasminogen activator inhibitor-1, is increased in chronic venous ulcers



The plasminogen activation system is a potent mechanism of extracellular proteolysis. This study investigated the expression of plasminogen activation factors and vitronectin in chronic venous ulcers vs. well-granulating wounds. Granulation tissue from well-granulating wounds showed more pronounced expression of tissue type PA (tPA) or urokinase-type PA (uPA) and PA inhibitor 1 (PAI-1) in the wound edge keratinocytes in chroniculcers vs. normally granulating wounds.

Weckroth M, Vaheri A, Virolainen S *et al*. Epithelial tissue-type plasminogen activator expression, unlike that of urokinase, its receptor, and plasminogen activator inhibitor-1, is increased in chronic venous ulcers. *Br J Dermatol*. 2004; **151**: 1189–1196.

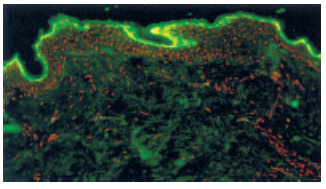
Melanoma or not? Cancer Testis Antigens may help



Cancer Testis antigens (CTAs) are expressed by a variety of different malignant neoplasm but never in normal adult tissues. For the pathologist, demonstration of CTA expression would thus clearly help to reach the sometimes difficult distinction between a nevus and a melanoma. Lüftl *et al*. found that analysis of a single CTA for a melanoma provides only a low sensitivity (10-30%) and thus is of limited benefit in diagnostic pathology. However, by increasing the number ($n = 6$) of analysed CTAs, the sensitivity to document suspected malignancy for a melanocytic lesion reaches 77%.

Lüftl M, Schuler G, Jungbluth AA. Melanoma or not? Cancer Testis Antigens may help. *Br J Dermatol* 2004; **151**: 1213–1218.

A potential diagnostic skin test for Netherton syndrome



Netherton syndrome (NS) is a rare autosomal recessive disorder characterised by an ichthyosiform erythroderma at or soon after birth, a specific hair shaft defect known as trichorrhexis invaginata and atopic manifestations. Confirming the diagnosis of Netherton syndrome in early infancy is often difficult in a baby who is usually very unwell with erythroderma and profound failure to thrive. The gene for NS has been identified as *SPINK5*, which encodes for LEKTI, a serine protease inhibitor that is expressed in the granular and upper spinous layers of the epidermis in normal skin. Immunohistochemistry using a polyclonal antibody to LEKTI showed a consistent absence or very reduced staining in patients with NS and positive expression in varying patterns in other inflammatory dermatoses. This provides a useful diagnostic test for NS.

Ong C, O'Toole EA, Ghali L *et al*. LEKTI demonstrable by immunohistochemistry of the skin: a potential diagnostic skin test for Netherton syndrome *Br J Dermatol* 2004; **151**: 1253–1257.