



Acquired perforating dermatosis

Keywords:

- acquired perforating dermatosis;
- diabetes mellitus;
- dialysis;
- renal failure;
- transepidermal elimination

Abstract

Background The term of acquired perforating dermatosis (APD) comprises the perforating dermatoses occurring in adult patients. Clinical and histological features of the disease are not uniform, and may resemble any of the four classic perforating disorders: elastosis perforans serpiginosa, reactive perforating collagenosis, perforating folliculitis or Kyrle's disease. Chronic renal failure and/or diabetes mellitus usually accompany this skin disease.

Objective The aim of this study was to delineate the clinical and histopathological features of acquired perforating dermatosis and to investigate the potential relationship between this disease and associated conditions.

Twenty-two patients with acquired perforating dermatosis were enrolled in this study. Clinical findings of acquired perforating dermatosis and the spectrum of associated diseases were investigated. Haematoxylin and eosin sections were re-examined, and immunohistochemical stainings (elastic van Gieson and Masson trichrome stains) and periodic acid-Schiff stain were also used for histopathological evaluation.

Results Different clinical types of lesions resembling reactive perforating collagenosis, perforating folliculitis or Kyrle's disease were observed. Histopathological features were consistent with any of the four types of perforating dermatoses. Most of the patients (86.4%) had at least one systemic disease. Chronic renal failure (72.7%) and diabetes mellitus (50%) were the most commonly associated conditions. Most of the patients with diabetes mellitus (90.9%) had chronic renal failure due to diabetic nephropathy. All of the patients with chronic renal failure were on dialysis treatment. The other associated conditions were hepatitis (27.3%), anti-HCV Ab-positivity (13.6%), hypothyroidism (9.1%) and tuberculosis lymphadenitis (4.5%). Of the 22 patients, 13.6% were otherwise healthy, and 9.1% were renal transplant recipients.

Conclusion Clinicopathological findings of our study indicate that the cases with APD represent the broad spectrum of perforating disorders rather than the variants of the same disease. Although APD is frequently associated with diabetes mellitus and chronic renal failure,

this skin disorder may also develop in patients with other systemic disorders, and in those without any medical problems. This skin disease is probably linked to dialysis treatment in patients with chronic renal failure due to diabetes mellitus or other causes.