

# Auto-Immune Diabetes and Systemic Scleroderma: A Rare Association

S. RAFI, H. OUAKRIM, G. El MGHARI, N. El ANSARI Department of Endocrinology, Diabetes, Metabolic diseases and Nutrition, Mohammed VI university hospital, Marrakech, Morocco

#### **Abstract:**

### **Background and objective:**

The association of multi-organ autoimmune diseases is described. We report a case of association between Latent autoimmune diabetes in adults (LADA) and systemic scleroderma (SSc), which remains a rarely reported entity in the literature.

## Case report:

38-year-old female patient, followed for systemic scleroderma with digestive and pulmonary involvements. The patient presented a dysphagia to solids with dyspnea installed in the last 2 months, with general state alteration. No polyuro-polydipsic syndrome, no diabetic heredity. A generalized cutaneous sclerosis was objectified at the clinical examination. A standard workup showed fasting blood glucose at 1.69g/l with HbA1c: 8.6%, the patient is treated with insulin-therapy. Immunology typing test of diabetes: anti GAD, anti Znt8: positive. Skin biopsy: Morphological aspect compatible with scleroderma.

# Discussion and conclusion:

Cases of coexistence of autoimmune diabetes with systemic sclerosis are rare. The pathogenesis of this association is not yet well understood. Interferon seems to play a major role as an immunomodulator and inhibitor of collagen production, and hypotheses suggest that it is also involved in the pathophysiology of several autoimmune diseases, including diabetes.

And it is well known that autoimmune diseases with the presence of organ-specific antibodies such as autoimmune diabetes or autoimmune thyroiditis can coexist with other non-organ-specific autoimmune diseases such as SSc. In addition, autoimmune diabetes has been shown to be more likely to occur in first-degree relatives of patients with SSc.

The association of autoimmune diabetes and systemic scleroderma could be at the origin of a difficulty to assure insulin injections, which may be responsible for an important blood glucose unbalance.

#### **Keywords:**

Autoimmune diabetes, systemic scleroderma, autoimmune diseases.