Thyroid Disorders in Patients with Systemic Sclerosis: Biochemical and Sonographic Characteristics

Katya Meridor1 M.D, Yair Levy2 M.D, Or Carmi3 M.D, Myriam Werner3 M.D, Pnina Rotman-Pikielny3 M.D.
1Department of Medicine E, 2Department of Diagnostic Imaging, 3Department of Endocrinology, Meir Medical Center, Kfar-Saba, affiliated to the Sackler Faculty of Medicine, Tel-Aviv University, Tel-Aviv, Israel

INTRODUCTION
Previous studies have shown elevated risk for thyroid autoimmune diseases in patients with systemic sclerosis (SSc). Increased risk for thyroid nodules and thyroid cancer was demonstrated in other autoimmune diseases like systemic lupus erythematosus (SLE), but the data regarding thyroid nodules and cancer in SSc patients is scarce.

OBJECTIVES
The aim of this study was to evaluate the thyroid gland in SSc patients using biochemical and sonographic tools.

RESULTS
Fifty patients (44 females, mean age 51.3±13.5 years) with diffuse cutaneous SSc and limited cutaneous SSc (40 and 10 cases, respectively) were evaluated. Ten patients were previously diagnosed with thyroid disease, 8 of them had autoimmune thyroid disease and two had a hemi-thyroidectomy. Out of the forty patients naive to a thyroid disorder 3 had subclinical hypothyroidism and 5 had positive anti-thyroid antibodies. Thyroid gland size was lower than normal in 4 patients (8%). Twenty-two patients (44%) had 1-6 thyroid nodules, which were ≥1 cm in 12 (24% of the patients). Accordingly, 6 patients underwent fine needle aspiration cytology (FNA) procedures: 5 were diagnosed as colloid nodules, and one as papillary carcinoma.

CONCLUSIONS
New cases of clinically significant autoimmune thyroid disease were not detected in our cohort of patients with SSc. Nevertheless, almost half of the patients had thyroid nodules. The clinical significance of these findings and their relation to thyroid cancer in SSc patients remains to be determined.