

Is There Any Association Between Psoriasis and Hashimoto's Thyroiditis?

Background:

Many studies showed that autoimmune diseases more prevalent in patients with psoriasis than in the general population. Hashimoto's thyroiditis, which is the most prevalent autoimmune disease, its association with psoriasis has been evaluated in many retrospectives and prospective studies with varying numbers of patients and study designs. A positive association had been found certain studies, while no clear association in others

Objective: To evaluate the association between psoriasis and Hashimoto's thyroiditis

Method: A case-control study was conducted from Oct 2017 to Oct 2018 in Faiha Specialized Diabetes, Endocrine, and Metabolism Center (FDEMC), which is a tertiary referring center in Basrah (Southern Iraq). Fifty-six patients with psoriasis were compared with 54 healthy, gender, age and body mass index-matched control. All participants had thyroid evaluation in form of measurement of thyroid stimulating hormone, free thyroxine (FT4), antithyroid peroxidase antibodies (TPO Ab), and antithyroglobulin antibodies (Tg Ab). Thyroid ultrasound examination was done looking for volume, hypo-echogenicity, pseudo-nodularity, and increased vascularity. Assessment of psoriasis severity using the Psoriasis Area and Severity Index (PASI) score

Results: Significant higher prevalence of TPO Ab, Tg Ab, hypo-echogenicity, pseudo-nodularity, and increased vascularity were found in patients with psoriasis, ($P= 0.02, 0.01, 0.02, 0.002, \text{ and } 0.001$ respectively). The prevalence in psoriasis versus control were for TPO Ab (25.00% vs 9.30%), Tg Ab (30.40% vs 11.10%), hypo-echogenicity (30.40% vs 9.30%), pseudo-nodularity (16.10% vs 0%), and increased vascularity (35.70% vs 5.60%). Patients with psoriasis with age of onset at diagnosis ≥ 40 years old and obesity were significantly more likely to

have positive TPO Ab with a prevalence of (42.10% and 40.70% respectively). There were no significant differences in the prevalence of hypothyroidism and subclinical hypothyroidism between psoriasis and

IX

control. In patients with psoriasis, psoriasis types, severity, duration, age, gender, smoking status, type 2 diabetes, and personal and family history of autoimmune diseases did not correlate with thyroid .autoimmunity

Conclusions: This study demonstrates a clear association between psoriasis and Hashimoto's thyroiditis in form of significant higher prevalence of TPO Ab, Tg Ab, hypo-echogenicity, pseudo-nodularity, and increased vascularity. For this reason, thyroid evaluation in form of measurement of thyroid antibodies, particularly TPO Ab, and ultrasound .may be included in the care of psoriasis patients