

PSORIASIS

## RISK OF THYROID DISEASES IN PSORIATIC PATIENTS: A NATIONWIDE COHORT STUDY

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**Introduction:** Psoriasis is a chronic immune-mediated inflammatory dermatosis that has been associated with inflammatory comorbidities for example myocardial infarction, chronic kidney disease and uveitis. On the other hand, the association between psoriasis and autoimmune comorbidities such as thyroid diseases is less studied. The objective of this study was to examine the associations between psoriasis and thyroid diseases.

**Material and methods:** We used Taiwan's National Health Insurance Research Database to conduct a nationwide cohort study. We examined the hazard ratio (HR) with 95% confidence interval (CI) for various incident thyroid diseases including hyperthyroidism, Graves' disease, hypothyroidism, and Hashimoto's thyroiditis, in relation to psoriasis with and without psoriatic arthritis.

**Results:** We identified 13,266 patients with psoriasis and psoriatic arthritis (PsA group), 149,576 patients with psoriasis alone (PsO group), and 162,842 nonpsoriatic controls. Both the PsA and PsO groups have an increased risk of incident hyperthyroidism (adjusted HR being 1.32 (95% CI 1.07-1.65) and 1.22 (95% CI 1.11-1.33), respectively). The two groups also had an increased risk of incident Grave's disease (adjusted HR being 1.38 (95% CI 1.07-1.79) and 1.26 (95% CI 1.13-1.41), respectively). They both had an increased risk of incident hypothyroidism as well (adjusted HR 1.74 (95% CI 1.34-2.27) and 1.38 (95% CI 1.23-1.56), respectively). In addition, the two groups had an increased risk of Hashimoto's thyroiditis (adjusted HR being 2.09 (95% CI 1.34-3.24) and 1.47 (95% CI 1.18-1.82), respectively).

**Conclusions:** Patients affected by psoriasis with and without psoriatic arthritis are prone to develop incident thyroid diseases including hyperthyroidism, Grave's disease, hypothyroidism, and Hashimoto's thyroiditis. Clinicians may incorporate this finding in clinical care for psoriasis. Endocrinological consultation may be considered when psoriasis



patients present with thyroid symptoms.

