Evaluation of thyroid dysfunction and thyroid autoantibodies in patients with Vitiligo

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Abstract

Background and Objective: Vitiligo is one of the most frequent skin disorders with a prevalence of 1-2% in different populations. Although many theories have been suggested for its pathogenesis, but the most popular hypotheses is the role of autoimmunity in Vitiligo. This study was done to evaluate the thyroid dysfunction and thyroid autoantibodies in patients with Vitiligo.

Methods: This case-control study was carried out on 45 patients with Vitiligo and 45 age- and sex-matched healthy individuals as control group. Age, gender, duration of the disease and type of Vitiligo were collected through a standard questionnaire. Thyroid autoantibodies including thyroglobulin antibody, anti-thyroglobulin and thyroid peroxidase antibody, and anti-TPO thyroid hormones Tetraiodothyronine (T4), Triiodothyronine (T3) and thyroid stimulating hormone (TSH) in Vitiligo patients and healthy volunteers were measured.

Results: Serum level of T4 was significantly reduced in Vitiligo patient compared to controls (P<0.05). Serum level of T4 in 20% of Vitiligo patient and 2.2% of control cases was less the normal level. Anti-TPO in 14 (31.1%) of Vitiligo patient and 6 (13.3%) of controls were higher than normal range (<60 IU/mL) (P<0.05). Serum level of anti-thyroglobulin was significantly higher in those with Vitiligo in compared to controls (P<0.05).

Conclusion: This study showed that the thyroid dysfunction particularly hypothyroidism and anti-TPO is more common in Vitiligo patients.

Keywords: Vitiligo, Thyroid dysfunction, Thyroid peroxidase antibody, Thyroglobulin antibody

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