



PIGMENTATION

## VITILIGO AND AUTOIMMUNE THYROID DISORDERS: A COMPARATIVE CASE-CONTROL STUDY IN A TERTIARY CARE HOSPITAL

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**Introduction:** Vitiligo is a commonly acquired pigmentary disorder, in which there is loss or destruction of melanocytes leading to depigmentation. The association of vitiligo with other autoimmune disorders, especially thyroid diseases, has been described widely in literature. However, controversies exist regarding screening of all vitiligo patients for thyroid dysfunction.

**Objective:** To determine if a statistically significant correlation exists between vitiligo and autoimmune thyroid disorders.

**Materials and Methods:** A case-control study was carried out on 64 vitiligo patients (41 females and 23 males) and 64 age and sex-matched healthy volunteers. Patients with known thyroid disease, having history of thyroid surgery and those receiving thyroid medications and immunosuppressants were not included in the study. Serum T3, T4 and TSH levels along with anti-TPO antibodies were measured in all the subjects.

**Results:** There were 13 cases (20.3%) with thyroid abnormalities in the study group compared to 4 cases (6.25%) in the control group ( $p = 0.03$ ). However, this was due to high anti-TPO positivity in study group as compared to control group (18.8% vs 4.7%) [ $p=0.025$ ]. There were no significant differences in the TSH, T3 and T4 abnormalities between the two groups. Neither was any difference observed in thyroid dysfunction between children of the two groups.

**Conclusions:** Screening of otherwise asymptomatic vitiligo patients, especially children, for thyroid dysfunction may be unfruitful as there are no significant differences in functional thyroid abnormalities (T3, T4, TSH) in vitiligo patients when compared with controls. It should be carried out preferably on an individual basis, for a more productive and cost-effective outcome. Similar larger studies are required to establish acceptable guidelines on full scale regular screening of vitiligo patients for thyroid function, especially in resource-limited settings.

