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## High Prevalence of Thyroid Antibodies in Urban Population of Peninsular Malaysia

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### Abstract

**INTRODUCTION:** Thyroid antibodies are closely related to autoimmune thyroid disorders. To date, there are no data on the prevalence of these antibodies among the Malaysian population. This study aimed to determine the prevalence of thyroid antibodies; and the factors associated with thyroid antibodies in the Malaysian adult population. **MATERIALS AND METHODS:** A cross-sectional study was performed in 5 preassigned regions in Peninsular Malaysia. Participants' sociodemographic profile and medical history were recorded. Physical examinations were done looking for abnormalities of the thyroid gland and signs of thyroid dysfunctions. Fifteen mLs of blood were withdrawn and analysed for thyroid function, anti-thyroperoxidase (anti-TPO) and anti-thyroglobulin (anti-TG) antibodies at a central laboratory. **RESULTS:** Among the total of 2190 respondents, the overall prevalence of positive anti-TPO and anti-TG antibodies were 12.2% and 12.1%, respectively; mainly found in urban and coastal areas. Only 7% to 9% of those with positive anti-TPO or anti-TG antibodies had either hypo- or hyperthyroidism. The predictors for positive anti-TPO antibody were female [adjusted OR 1.7 (95%CI: 1.2-2.4); p=0.001], Indian [adjusted OR 1.9 (95%CI: 1.1-3.1); p=0.020], and having a goitre [adjusted OR 1.8 (95%CI: 1.2-2.8), p=0.004]. The predictors of positive anti-TG antibody was female [adjusted OR 2.3 (95%CI: 1.6-3.3); p<0.001], and having a goitre [adjusted OR 2.0 (95%CI: 1.3-3.4), p=0.001]. Those living in rural areas had 38% lower risk of having positive anti-TG. **CONCLUSIONS:** The prevalence of positive anti-TPO and anti-TG antibodies were 12.2% and 12.1%, respectively; were higher among the urban and coastal populations. Those living in rural areas had lower risks of anti-TG antibody.

### Keywords

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