

Factors contribute to Tuberculin Skin Test (TST) positive among urban Islander, Malaysian Borneo

ABSTRACT

Introduction: Latency and the identification of risk groups have become a challenge and a priority to achieve the control and eradication of the TB disease. The objective of this study is to determine the prevalence and risk factors of tuberculin skin test (TST) positive in Pulau Gaya, Sabah, Malaysian Borneo. Methods: A cross-sectional study was conducted among 197 from Pulau Gaya residents by using non-probability convenient sampling method from March to May 2017. Questionnaire on socio-demographic and risk factors of TB was used to assess the risk factors for TST positive. The data was collected by trained health personnel. TST was administered and measured after 72 hours by a trained lab technician. The standardised cut-offs of ≥ 10 mm are defined as reactive positive TST. TST positive cases were referred to Luyang Health Clinic for further investigations and management. SPSS version 24 was used to analyse the associated factors. Results: The response rate was 100% (197) and the Prevalence of TST positive was 46.2%, which is considered high compare to other areas in Malaysia. The significant risk factors in bivariate analysis for TST positive were old age ($p < 0.005$), increase BMI ($p < 0.033$), marriage ($p < 0.001$), employment ($p < 0.05$), closed contact with TB patient ($p < 0.005$), and Bacillus Calmette-Guerin (BCG) scars ($p < 0.005$). In multivariate analysis, all the significant variables were entered, resulting in variables of employment (aOR 2.327 (95% CI:1.175-4.609)) and no BCG scar (aOR 2.473 (95% CI:1.175-4.446)). Conclusion: The risk factors for positive TST were unemployment and no BCG scar. These high-risk group individuals need to be screened and monitored to detect the latent TB or early symptoms of active PTB. A health facility needs to be built in Pulau Gaya to improve TB vaccination activity and management programme. © Copyright 2021 by Gazi University Medical Faculty