

Seroprevalence of leptospiral antibodies among market workers and food handlers in the central state of Malaysia

ABSTRACT

Objective: The high prevalence of leptospirosis in humans is of great public health concern, particularly in tropical and subtropical regions. This study aimed to determine the seroprevalence of leptospiral antibodies and distribution of serovars, and to assess the usefulness of enzyme-linked immunosorbent assay (ELISA) as a screening method for leptospiral antibodies in a high-risk healthy community. **Methods:** Cross-sectional study of 231 market workers and food handlers in wet markets and food premises from two localities in central Malaysia. Respondents' background information was obtained using a questionnaire. Serum samples were tested for leptospiral antibodies using ELISA and microscopic agglutination test (MAT). **Results:** Seroprevalence of leptospirosis among healthy workers was 46.3%. Detection of seropositivity was higher by MAT (46%) than ELISA (15%). We observed high seropositivity among local workers (49%), food handlers (49.5%), females (60.8%) and those aged 34 years and older (46.3%). Local strain LEP175 was the predominant serovar, followed by WHO strain Patoc. **Conclusion:** Overall seroprevalence among healthy food handlers and market workers was high in this study. The workplace places susceptible individuals at risk of leptospirosis.

Keyword: MAT; Aliments; Food; Leptospirose; Leptospirosis; Marche; Market; Microscopic agglutination test; Seroprevalence; Serovar; Seroprevalence; Serovar