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ABSTRACT

Title of Abstract : Case Control Study on Pediatric Tuberculosis Risk Factors at Karang Asam Health Center Samarinda
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Background : Tuberculosis (TB) is an infectious disease caused by *Mycobacterium tuberculosis* that mainly affects the respiratory system and poses significant health and economic burdens. In Samarinda, the Karang Asam Health Center recorded the highest TB cases in 2024, with 162 cases, including 14 pediatric cases completing treatment and 148 treated at other facilities.

Objective : The study aimed to describe the characteristics and risk factors associated with the incidence of TB in children at the Karang Asam Health Center in Samarinda City.

Research Methods/ Implementation Methods : This case-control study involved 20 cases and 40 controls. The independent variables were close contact, nutritional status, and immunization status, with childhood tuberculosis as the dependent variable. Samples were obtained by purposive sampling. Data were analyzed using the Chi-Square test with a 95% confidence level, reporting p-values and OR ($p < 0.05$ significant).

Results : The results showed that most of the 20 children with TB were aged 0-5 years (65%), male (60%), had a history of contact (85%), poor nutritional status (80%), and incomplete immunization status (70%). Based on the Odds Ratio (OR) calculation, it shows a large risk value for the incidence of TB in children, namely contact history (OR= 13,222; 95% CI= 3,256 – 53,691), nutritional status (OR = 6.000; 95% CI = 1.693-21.262), and immunization status (OR = 7.000; 95% CI = 2.120-23.113).

Conclusion/Lesson Learned : Contact history, nutritional status, and immunization status were significant risk factors for pediatric TB. Communities are encouraged to enhance prevention through regular health checks and proper TB management in at-risk children.

Keyword : Pediatric Tuberculosis; Risk Factors for Tuberculosis in Children; Contact History; Nutritional Status; Immunization Status