

# **Correlation of Hemoglobin Levels and Erythrocyte Sedimentation Rates in Childhood Tuberculosis Patients at Hospital X**

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## **ABSTRACT**

Tuberculosis is a chronic infectious disease caused by the bacteria *Mycobacterium tuberculosis*. This bacteria is at risk of transmitting to vulnerable groups, one of which is children with symptoms of coughing for more than 2 weeks. In childhood tuberculosis, low hemoglobin conditions and increased erythrocyte sedimentation rates are common. The purpose of this study was to determine the correlation between hemoglobin levels and erythrocyte sedimentation rates in child tuberculosis patients at Hospital X. The type of research is descriptive with a cross-sectional study design, with samples of all anemia patients who underwent hemoglobin and erythrocyte sedimentation rate examinations at Hospital X in January-December 2024 according to the inclusion and exclusion criteria, as many as 59 samples. The results of the study showed that childhood tuberculosis often occurred at the age of 1 year as many as 16 patients (27.1%) and most of the boys as many as 35 patients (59%). The correlation between hemoglobin levels and the amount of erythrocyte sedimentation rate in pulmonary tuberculosis patients showed an increase (LED 1: p-value 0.020 and LED 2: p-value 0.042). The conclusion of this study is that there is a correlation between hemoglobin levels and erythrocyte sedimentation rate in childhood tuberculosis patients at Hospital X.

**Keywords:** Tuberculosis; hemoglobin; erythrocyte sedimentation rate