



Correlation of Anemia and Total Iron Binding Capacity among Primary School Children in Medan

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Abstract: Anemia is a condition in which the number of red blood cells or their oxygen carrying capacity is insufficient to meet physiologic needs. Iron Deficiency Anemia (IDA) is the most common type of anemia in society. Iron deficiency is the commonest form of malnutrition worldwide and according to the World Health Organization it affects 43%. We conducted a cross sectional study to examine the correlation of anemia and TIBC among school children in Medan. A total of 132 children aged 9-12 years were studied. The mean level of hemoglobin and TIBC were 13.4 g/dL and 329.75 µg/dL respectively. Data were collected using structured questionnaire, and laboratory analysis for blood samples. The prevalence of anemia was 7.6%, and high level of TIBC was 41.7%. The correlation between anemia and TIBC was 0.16 with $P = 0.059$. There was no correlation between anemia and TIBC. The risk of children with anemia for having High TIBC level was 1.78 times higher than children without anemia (RP 1.78 (CI: 1.121 – 2.823)). More studies need to be done to find anemia cases and see its relation to TIBC.

Keyword: Anemia, TIBC, Primary School Children.

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