Relationship of animal protein and dietary iron with hemoglobin level among 13-36 months aged children

Abstrak:

Children under five years old are the group that susceptible toward the health and nutrition problems. The most prevalence problem is iron deficiency anemia. Most of iron deficiency anemia cases was caused by lack of iron in their meal. Animal food, the one of iron source is important in hemopoietic process. Based on the reason, study was carried out to explore correlation between animal protein and hemoglobin level among children by age 13–36 months in Sawotratap village, under Gedangan Health Center working area, Sidoarjo District. This is a cross sectional research. Samples were 64 children randomly selected from 4 posyandu in Sawotratap. Variable observed were protein consumption, animal protein, iron, and vitamin C from meal and hemoglobin concentration. The research indicates that the average of hemoglobin concentration was 11.36 g/dl, the lowest of hemoglobin concentration was 8.80 g/dl, and the highest was 13.40 g/dl with anemia prevalence was 40.60%. Based on statistic test, there are significant correlation between hemoglobin concentration and protein consumption (r = 0.579), animal protein consumption (r = 0.763), total iron intake (r = 0.554), and vitamin C intake (r = 0.273). The correlation of animal protein consumption with hemoglobin concentration is stronger than other.

Keyword:

anemia, animal protein, iron, hemoglobin concentration