

ABSTRAK

Anemia defisiensi besi adalah anemia yang terjadi karena kurangnya penyediaan besi di dalam darah untuk eritropoiesis. Anemia defisiensi besi ditandai dengan penurunan Hb dan adanya peningkatan kadar *total iron binding capacity* (TIBC). TIBC menunjukkan kemampuan protein membawa zat besi di darah. Nilai TIBC yang tinggi mengindikasikan bahwa jumlah besi yang diikat dan dibawa ke sumsum tulang hanya berjumlah kecil. Defisiensi besi yang terus berlanjut menyebabkan peningkatan eritropoietin tanpa adanya peningkatan retikulosit. Peningkatan kadar eritropoietin diduga dapat menyebabkan peningkatan jumlah sel trombosit karena proliferasi sel progenitor di sumsum tulang. Tujuan dari penelitian ini adalah untuk menganalisis hubungan antara kadar *total iron binding capacity* (TIBC) dengan jumlah sel trombosit pada suspek anemia defisiensi besi. Pemeriksaan TIBC menggunakan metode elektroforesis, sedangkan pemeriksaan hitung jumlah trombosit menggunakan metode *hydro dynamic focusing detection methode* (DC). Penelitian ini merupakan jenis penelitian observasional analitik dengan pendekatan *cross sectional*. Jumlah sampel pada penelitian ini yaitu sebanyak 30 orang yang diambil melalui teknik *purposive sampling*. Penelitian dilakukan di RSUD Haji Provinsi Jawa Timur pada bulan April-Mei 2022. Hasil penelitian didapatkan peningkatan TIBC sebanyak 30% dengan TIBC >360 µg/dL dan peningkatan jumlah sel trombosit sebanyak 47%. Kesimpulannya menunjukkan bahwa terdapat hubungan antara kadar TIBC dengan jumlah sel trombosit pada suspek anemia defisiensi besi di RSUD Haji Provinsi Jawa Timur.

Kata kunci : Anemia Defisiensi Besi, *Total Iron Binding Capacity* (TIBC), Jumlah Sel Trombosit

ABSTRACT

Iron deficiency anemia is anemia that occurs due to insufficient supply of iron in the blood for erythropoiesis. Iron deficiency anemia is characterized by a decrease in Hb and an increase in total iron binding capacity (TIBC). TIBC indicates the ability of the protein to carry iron in the blood. A high TIBC value indicates that only a small amount of iron is transported to the bone marrow. Continued iron deficiency causes an increase in erythropoietin without an increase in reticulocytes. An increase in erythropoietin levels is thought to cause an increase in the number of platelet cells due to the proliferation of progenitor cells in the bone marrow. The purpose of this study was to analyze the relationship between levels of total iron binding capacity (TIBC) and the number of platelet cells in suspected iron deficiency anemia. TIBC examination uses the electrophoresis method, while the platelet count examination uses the hydrodynamic focusing detection method (DC). This research is an analytic observational research with a cross sectional approach. The number of samples in this study were 30 people who were taken through purposive sampling technique. The study was conducted at the Haji Hospital, East Java Province in April-May 2022. The results showed an increase in TIBC by 30% with TIBC >360 g/dL and an increase in the number of platelet cells by 47%. The conclusion shows that there is a relationship between TIBC levels and the number of platelet cells in suspected iron deficiency anemia in Haji Hospital, East Java Province.

Keywords: Iron Deficiency Anemia, Total Iron Binding Capacity (TIBC), Platelet Cell Count