

Iron deficiency anemia and total antioxidant capacity

Demir eksikliği anemisi ve toplam antioksidan kapasitesi

Viroj Wiwanitkit

Wiwanitkit House, Bangkhae, Bangkok, Thailand

To the Editor,

I read the recent publication on evaluation of iron deficiency anemia via total antioxidant capacity with great interest [1]. It concluded that, "increased oxidative stress may play a role in the pathogenesis of iron deficiency anemia" and that, "the automated assay is a reliable and easily applied method for measurement of serum total antioxidant capacity in iron deficiency anemia" [1]. There are some issues I want to address. First, based on the limited and imbalanced number of cases and controls in that study, the statistical acceptance is questionable. Second, there was no exclusion of important confounding conditions, especially hemoglobin disorders and thalassemias. Indeed, those conditions are associated with oxidative stress [2]. Finally, there wasn't a complete assessment of the analytical

(detection limit, interference, precision, accuracy, etc.) or diagnostic (sensitivity, specificity, predictive value, etc.) properties of the automated assay. Hence, it might not be appropriate to report that the assay is reliable.

Conflict of interest statement

The authors of this paper have no conflicts of interest, including specific financial interests, relationships, and/or affiliations relevant to the subject matter or materials included.

References

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2. Fibach E, Rachmilewitz E. The role of oxidative stress in hemolytic anemia. *Curr Mol Med* 2008;8:609-19.