

## Optimal Timing for Measuring Serum S100B Levels in Patients with Syncope

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Dear Editor,

We read the article "Utility of Serum S100B Level, SFSR and OESIL Scores in Anticipating Short Term Adverse Events of Discharged Syncope Patients" (1) by Akoğlu et al. published in your journal's 2013-1 issue with great interest. We are grateful for the findings they share with us. We would like to contribute to the study limitations, referring to a few basic features of the biochemical parameters.

S100B is a protein with a half-life of approximately 120 min and is excreted from the kidney; it can be detected in the serum in events such as ischemia or necrosis. The elapsed time between blood sampling and occurrence of the injury can affect the level of serum S100B (2). Müller et al. (3) have shown that measurement of serum S100B levels 3 h after an ischemic event was unreliable and affected the results of the study. Based on these features, we suggest that evaluating patients with syncope with an elapsed period not exceeding 3 h would increase the objectivity of the study, rather than including patients with syncope admitted within the last 48 h.

We believe that careful selection of patients with syncope and collection of blood samples would result in better outcomes of the study. It has been reported that serum S100B levels in the

collected blood samples of patients with syncope within 48 h, which were taken at a time range of 15 min to 6 h after the index event, were evaluated. Serum S100B levels of patients with syncope within 48 h will be lower than expected because of the short half-life of S100B.

We appreciate the authors' valuable presentation and offer our respects.

### References

1. Akoğlu H, Denizbaşı A, Güneysel Ö, Onur OE, Eroğlu SE, Sarıtemur M, et al. Utility of serum S100B level, SFSR and OESIL scores in anticipating short term adverse events of discharged syncope patients. *JAEM* 2013; 12: 1-7.
2. Sezer AA, Akıncı E, Öztürk M, Coşkun F, Yılmaz G, Karakaş A, et al. The role of blood S100B and lactate levels in minor head traumas in children and adults and correlation with brain computerized tomography. *Ulus Travma Acil Cerrahi Derg* 2012; 18: 411-6. [\[CrossRef\]](#)
3. Müller K, Townend W, Biasca N, Undén J, Waterloo K, Romner B, et al. S100B serum level predicts computed tomography findings after minor head injury. *J Trauma* 2007; 62: 1452-6. [\[CrossRef\]](#)



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