

## Fluctuation of serum C3 levels reflects disease activity and metabolic background in patients with IgA nephropathy: response to comment

Yasuhiko Tomino

Received: 15 February 2014 / Accepted: 31 March 2014 / Published online: 6 June 2014  
© Italian Society of Nephrology 2014

Dear Editor,

We are grateful to Dr. Sakallioğlu for taking an interest in our article [1]. The first question about an equivocal point of our conclusions is natural [2]. Essentially the pathophysiology of IgA nephropathy (IgAN) is heterogeneous. Since in most cases patients have to live with IgAN for a long time, several years to even decades, we can imagine that the metabolic background might change with the passage of time. On the other hand, renal biopsy is performed at a different time in each case; in some cases it is performed at sudden onset, but in other cases at several decades from onset. Similarly, the age of IgAN patients distributed throughout the world ranges widely. Thus, it is not clear whether their renal symptoms might reflect pure disease activity of IgAN or metabolic status (or aging). As to Dr. Sakallioğlu's recommendation, our next plan is to clarify whether metabolic status affects the clinical course of IgAN, in a study population with well-defined age categories.

Serum complement component levels reflect the balance of production and consumption. Our colleague Onda's report (reference no. 7 in our article) presented the serum levels of most complement components raised except for

C3 and MBL. We consider that the consumption of C3 and MBL might surpass their production.

Although we recognize that standardization of quantification is important in basic research, our clinical study was absolutely retrospective: 122 patients with IgAN were collected from 1992 to 2004 (as described in Patients and Methods) and we analyzed the results of complement levels and CH50 which were measured by the reliable methods performed in the central laboratory in our hospital. Frozen plasma, which stores for more than 10 years, would not really have been suitable for evaluation.

**Conflict of interest** The authors have no conflict of interest.

### References

1. Suzuki H, Ohsawa I, Kodama F, Nakayama K, Ohtani A, Onda K, Nagamachi S, Kurusu A, Suzuki Y, Ohi H, Horikoshi S, Tomino Y (2013) Fluctuation of serum C3 levels reflects disease activity and metabolic background in patients with IgA nephropathy. *J Nephrol* 26(4):708–715. doi:10.5301/jn.5000278
2. Sakallioğlu O (2014) Comment on the article 'Fluctuation of serum C3 levels reflects disease activity and metabolic background in patients with IgA nephropathy'. *J Nephrol*. doi:10.1007/s40620-014-0104-x

---

Y. Tomino (✉)  
Division of Nephrology, Department of Internal Medicine,  
Juntendo University Faculty of Medicine, Tokyo, Japan  
e-mail: yasu@med.juntendo.ac.jp