

Reply to the letter by Takeshi Yamada et al. concerning “Is serum HER2 ECD a predictive biomarker for response to trastuzumab in advanced gastric cancer?”

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To the editor:

We thank Yamada et al. for their constructive comments entitled “Is serum HER2 ECD a predictive biomarker for response to trastuzumab in advanced gastric cancer?” related to our article [1].

In our study, an objective response rate (ORR) was not shown by subgroups because most patients (48 of 65) were treated with first-line chemotherapy. In those 48 patients, those with higher baseline serum human epidermal growth factor receptor 2 (HER2) extracellular domain (ECD) levels (15.0 ng/mL or more and 10.65 ng/mL or more) had a better ORR (89.5 % vs 52.0 %, $P = 0.01$; 81.3 % vs 33.3 %, $P = 0.004$) than those with normal baseline serum HER2 ECD levels (less than 15.0 ng/mL and less than 10.65 ng/mL). Because of the limited number of patients, in the 14 patients treated with second-line trastuzumab-based chemotherapy, a higher baseline serum HER2 ECD level was still associated with better ORR although not to a statistically significant extent.

We found a high baseline serum HER2 ECD level and a decline of serum HER2 ECD level during chemotherapy significantly correlated with the response to chemotherapy, which is consistent with the findings reported in another

article concerning gastric cancer [2]. In breast cancer, there are indeed contrary results concerning the predictive value of serum HER2 ECD levels in HER2-positive breast cancer [3]. However, the mechanism is still unclear.

In our observational study we prospectively collected consecutive HER2-positive advanced gastric cancer patients treated with trastuzumab-based chemotherapy. We could not exclude the potential bias due to the heterogeneity of the patients. As we discussed in the “Discussion” section, further well-designed prospective studies with a larger sample size need to be performed to validate and strengthen our conclusion.

Compliance with ethical standards

Conflict of interest The authors declare that they have no conflict of interest.

References

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