REBUTTAL LETTER



Breast cancer is a systemic disease rather than an anatomical process

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Dear Editor,

We read with great attention the letter from Altundag. In the same, Altundag discusses the effect of laterality in our study and compares our results with a study evaluating the rates of metastases among patients with N3 disease. The author also describes the anatomical differences between the right and left lymphatic drainages and suggests a potential role in the development of distant metastases.

We would like to make the following observations: First, our study found no significant differences in the distribution of laterality [1]. Based on this, we think that elaborating conclusions about the role of laterality in the development of metastatic disease should be avoided as it could be misleading. Second, it has been known for several decades that breast cancer is a systemic disease and that the risk of distant metastases depends more on the tumor biology rather than the laterality, anatomical site, and its corresponding lymphatic drainage [2]. In fact, our study shows that tumor subtypes are clearly associated with specific sites of metastases, as shown by our adjusted

logistic regression model [1]. Third, our results should not be interpreted in the way Altundag proposes, because our study analyzed patients who already had established metastases at initial diagnosis, rather than patients who would be at risk for such event.

Compliance with ethical standards

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

References

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