Serum levels of CEA and CA 15-3 in triple-negative breast cancer at the time of diagnosis

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To the Editor,

Cancer antigen 15-3 (CA 15-3) and carcinoembryonic antigen (CEA) are often used in follow up care of breast cancer and provide important clues to the clinicians for disease progression in metastatic and recurrent breast cancer. However, use of CA 15-3 and CEA levels are not recommended for surveillance after primary therapy of breast cancer at ASCO guideline [1]. Triple-negative breast cancers (TNBC) are frequently defined as a single group identifiable using routine clinical tests. They are negative for estrogen receptor (ER), progesterone receptor (PR), and the human epidermal growth factor receptor 2 (HER2), the so-called 'triple-negative' breast cancers. We retrospectively analyzed serum CEA and CA 15-3 levels of 544 consecutive non-metastatic breast cancer patients presenting at Hacettepe University Institute of Oncology. The 15.1% of the patients were TNBC. There were no statistically significant differences in clinical characteristics of

the disease between TNBC and non-TNBC patients. At the time of diagnosis TNBC group have lower serum CEA (2.5 ± 5.9 vs. 4.0 ± 16.4 ; $P = 0.35$) and CA 15-3 (23.7 ± 14.6 vs. 37.1 ± 117 ; $P = 0.021$) levels compared to non-triple negative (non-TN) group (3). This may be explained in part by undifferentiated characteristics of triple negative breast cancers. In conclusion, serum levels of CEA and CA 15-3 may be different in breast cancer subgroups. Our findings need to be confirmed in further studies.

Reference

1. Harris L, Fritsche H, Mennel R, Norton L, Ravdin P, Taube S, et al. American Society of Clinical Oncology. American Society of Clinical Oncology 2007 update of recommendations for the use of tumor markers in breast cancer. *J Clin Oncol.* 2007;25:5287–312.

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