prevents coagulation and, therefore, plasma, and not serum, was obtained after centrifugation of the whole blood.

The difference between plasma and serum is relevant, particularly when VEGF is measured. In serum, the VEGF level is several-fold higher than in matched plasma samples, owing to the in vitro release of VEGF from platelets during blood clotting [2].

In general, plasma should be preferred to serum for the evaluation of circulating extracellular VEGF at the time of blood sampling. However, recent studies suggested that platelet-derived VEGF also reflects the biology of cancer cells and serum should be used for the measurement of VEGF levels in cancer patients. Platelets are a rich source of stimulators and inhibitors of angiogenesis. They may adhere to tumour vessels and release granules that contain potent angiogenesis stimulators. Alternatively, because platelets may scavenge several hormones and proteins, they may also scavenge tumour-cell-released angiogenic stimulators and inhibitors from the tumour vasculature [3].

When VEGF is measured, the conditions of processing should be standardised and declared. Unfortunately, the authors did not report the length of time and force of centrifugation. Spinning the samples at different speeds or for different times may affect the plasma VEGF levels [4].

The authors observed a two-fold increase in the mean VEGF levels of testicular cancer patients when compared with healthy control subjects. However, individual values were scattered widely with serum levels from several cancer patients being in the normal range. EDTA plasma was used for the measurement of VEGF. EDTA influences platelet shape by changing Ca$^{2+}$ concentration. This may increase the interpersonal variation in platelet activation and affect VEGF determination. Citrate, theophylline, adenosine and dipyridamole (CTAD) plasma should be used to measure circulating extracellular VEGF [5].

In light of these considerations, I believe that it would be interesting to evaluate the VEGF levels of testicular cancer patients on serum samples. Allowing whole blood samples to clot for 2 h at room temperature and standardizing the conditions of processing will increase the clinical value of serum VEGF determination in cancer patients. When plasma is used for the determination of circulating extracellular VEGF, CTAD anticoagulant should be preferred to EDTA.

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Late local recurrences in a randomized trial comparing conservative treatment with total mastectomy in early breast cancer patients: the impact of receptor status on local relapse

We read with interest the article concerning late breast recurrences in patients with breast conservative treatment compared with those who underwent mastectomy for early breast cancer in the November 2003 issue of Annals of Oncology [1]. In spite of the limited number of patients, the main finding in patients with a mean follow-up of 22 years was that the late local recurrence rate was higher among the breast-conserving surgery patients than among mastectomized patients. Although there was no difference between the two treatment groups in terms of age, macroscopic tumor size, histological grade and the number of histologically proven negative axillary nodes, the authors did not mention receptor status, which is one of the most important prognostic and predictive factor for breast cancer patients. Negative estrogen receptor status has been found to be associated with an increased risk of local relapse in patients undergoing breast conservative treatment [2]. Therefore, receptor status must also be considered in the analysis of increased late recurrence risk in these patients.

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