

# Counting tumor cells in blood predicts treatment benefit in prostate cancer

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Counting the number of tumor cells circulating in the bloodstream of patients with castration-resistant prostate cancer can accurately predict how well they are responding to treatment, new results show.

At the ESMO Conference Lugano (ECLU) organized by the European Society for Medical Oncology, researchers showed that changes in the number of circulating tumor cells predicted the outcome after chemotherapy in this hard to treat cancer.

"The results add to a growing body of evidence showing that counting these cells is a valuable method for predicting survival and for monitoring treatment benefit in these patients", said Dr. David Olmos from The Royal Marsden NHS Foundation Trust in the UK.

"Our study shows that circulating tumor cell counts could provide information about how patients are responding to therapy earlier than other markers such as prostate-specific antigen (PSA) or time-to-disease progression," he said. "We have observed that patients with declining numbers of circulating tumor cells can see a change in their initial prognosis, reflecting a potential benefit from therapy."

Among the 119 patients in the study, researchers found that those with the lowest circulating cell counts had on average the longest survival.

"Cancer cells can be detected in the circulating blood by a range of methods", Dr. Olmos said. "The technique we used in our study is classified as a cytometric approach. We use an antibody that is widely expressed by epithelial cancer cells, and then use a range of cell-staining techniques to ensure it is a cancer cell."

"Because these circulating cells have broken away from either primary tumors or metastatic sites in

other parts of the body, they could potentially be used to help study the specific characteristics of the cancer and perhaps personalize therapy", Dr. Olmos said.

Source: European Society for Medical Oncology

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