

Circulating tumor cells detection in patients with adrenocortical cancer.

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Adrenocortical carcinoma (ACC) is a rare cancer with a dismal prognosis, characterized by a reported incidence of 1-2/million population/year and an overall 5-year-survival rate around 35%. Malignant tumors can spread to distant sites through circulation by circulating tumor cells (CTCs). Monitoring of CTCs, therefore, can be a predictive parameter of treatment efficacy, also at intermediate end-points. CTCs count has been accepted by FDA as prognostic tool in patients with metastatic breast, prostate and colorectal cancer. Aim of our study was to search for CTCs in the ACC patients blood. CTCs count was carried out by the Veridex System, a device capable of extracting, concentrating and quantify CTCs from a 7.5ml blood sample. We performed CTCs count on 10 advanced (stage IV) ACC patients (5 men, 5 women, mean age 45.7 yrs). At the analysis time, all but one patients were on chemotherapy treatment: 4 with etoposide, doxorubicin and platinum + mitotane (1st line), 1 with platinum monotherapy (2nd line), 2 with cyclophosphamide (3rd line) and 3 with gemcitabine + capecitabine (3rd line). Number of metastatic sites ranged 1-5; 9 patients had disease progression and 1 stable disease. In 4/10 cases (40%), we detected CTCs, percentage in agreement with data obtained in other cancer types. Number of CTCs detected was >10 in one patient while the remaining showed 5, 2, and 1 CTCs, respectively. These preliminary data show that methodology of CTC count is feasible also in ACC patients. Further study on larger samples is needed to understand whether CTC count is correlated to clinical outcomes.