The following full text is a publisher’s version.

For additional information about this publication click this link.
http://hdl.handle.net/2066/153062

Please be advised that this information was generated on 2019-03-14 and may be subject to change.
Immune infiltrates impact on the prediction of prognosis and response to immunotherapy of melanoma patients

Angela Vasaturo1*, Dagmar Verweij1, Lucie Heinzerling2, Jolanda de Vries1, Willeke Blokx3, Carl G Figdor1

From Melanoma Bridge Meeting 2014
Naples, Italy. 03-06 December 2014

Background
Melanoma is a highly malignant melanocyte-derived tumor and its incidence is increasing at outstanding rate. Despite specific therapies have been explored for many years, no effective therapeutic options have been developed. Vaccination strategies, including Dendritic Cells (DC) based immunotherapy, are consistently increasing the proportion of cancer patients with anti-vaccine immune responses although the number of patients with increased overall survival is still limited. The efficacy of the immunotherapy is mainly dependent on tumor microenvironment – immune system interactions.

Our aim is to evaluate the host immune response to melanoma by quantifying the density and location of T cells in primary tumors of patients treated with DC immunotherapy and correlate them with clinical variables such as overall survival (OS).

Results
The immunohistochemical analysis of primary melanoma using a small set of patients resulted in significant differences between short (OS<12 months) and long survivors (OS>24 months). A high degree of T cells infiltration was seen in the tumor area of both patients, responding and non-responding to DC immunotherapy. However, the location but not the density of TILs was significantly different in the two cohorts of patients and showed a strong correlation with clinical response to DC vaccination.

Conclusions
Immune cells within melanoma tumors may have a prognostic value and clinical significance as a predictor of patient outcome and response to DC immunotherapy in melanoma patients.

Authors' details
1Department of Tumor Immunology, Radboud Institute for Molecular Life Sciences, Nijmegen, Netherlands. 2Department of Dermatology, University Hospital of Erlangen, Erlangen, Germany. 3Department of Pathology, Radboud University Medical Center, Nijmegen, The Netherlands.

Published: 15 January 2015