Adoptive T cell therapy with or without dendritic cell vaccination in metastatic melanoma


Conclusion
Cohort A (ACT+IL-2) with 5 treated patients showed that it is feasible with limited expected toxicity to treat patients with high doses of TIL. All patients showed mixed response or a short time of stable disease. The results from the three first patients in cohort B (ACT+IL-2+DCV) are encouraging and show that it is possible to use ACT in combination with DC vaccination to achieve a strong long lasting clinical anti-tumor response in patients who have progressed on checkpoint therapy.

Patient 9) a strong partial responder 10) a complete responder 11) a mixed responder.

Introduction and aim
Although the treatment of patients with metastatic melanoma has been revolutionized in the past years, there is still a need for additional treatments when the approved ones are exhausted. Adoptive Cell Therapy (ACT) with tumor infiltrating lymphocytes (TIL) has been reported to induce clinical responses in up to 70% of stage IV melanoma and it is practiced at a number of clinical centers worldwide.

The aim of the MAT02 trial is to investigate the toxicity and feasibility of a combined treatment with ACT with or without DC (Dendritic Cell) vaccination in patients with advanced melanoma.

Adoptive Cell Therapy with TIL

Study design

Responses in the first three patients in cohort B: ACT + DC vaccination

Patient 09, strong partial responder

Patient 10, complete responder

Patient 10, complete responder

Future plans for MAT02 trial
• The fourth patient in cohort B has been treated showing clinical benefit already after TIL transfusion. Radiological evaluation is pending.
• The fifth and the last patient in cohort B has been included and the production of TIL is ongoing.
• Evaluation of the trial is due after summer 2018.
• Extention of the trial is considered.