

We greatly appreciate the grant we received from Scandiatransplant.

The AutoOCT study aimed to validate a semi-automatic optical coherence tomography (OCT) software for 3D vessel contour analysis. Secondly, we aimed to use the validated software to study early development of cardiac allograft vasculopathy after heart transplant by use of OCT.

The validation study has been completed according to plan by research student Niels Møller Jensen with publication peer reviewed journal (Int J Cardiovasc Imaging. 2023 Feb;39(2):257-268). We concluded that the semi-automated software has the future potential to provide robust and time-saving evaluation of cardiac allograft vasculopathy progression after heart transplant. The main funding for this project was granted from other sources.

We had planned to use the validated software in a retrospective observational study. However, we decided to conduct a prospective study of coronary anatomy, physiology and wall structure in a cohort of 50 heart-transplanted patients. These patients underwent a comprehensive assessment of coronary anatomy by invasive coronary angiogram, fractional flow reserve and OCT and by non-invasive cardiac computed tomography angiogram with assessment of coronary stenosis, plaque analysis and fractional flow measurement. This study has been completed by research student Rasmus Dalsgaard. The study has been completed and we are in the data analysis process. We expect to be able to write two manuscripts during the fourth quarter 2024, which will be submitted to a peer review scientific journal. We have used the grant from Scandiatransplant to cover some of the costs for OCT scans in this project.

Once again, many thanks for the financial support that we have received from Scandiatransplant, which will allow us to investigate this important question. Please contact me if you have further questions.