

Stereotactic ablative radiotherapy for patients with oligometastatic disease.

PhD student Mette Felter, Herlev Hospital.

Background

Stereotactic Body Radiotherapy (SBRT) for patients diagnosed with cancer and few metastasis (oligometastatic disease - OMD) is increasingly being used. The introduction of new systemic treatment options with long-term survival for some patients, calls for an aggressive approach to obtain durable response in selected metastatic lesions. SBRT is an alternative treatment option to surgery or other invasive treatment strategies. However, SBRT outside the lungs and brain is still, in many cases, considered experimental and not without risk. The literature is scarce in respect to the optimal dose fractionation scheme, and the optimal imaging work-up is not yet clearly defined. The benefit of SBRT to patients with OMD has recently been documented in several international studies and the toxicity profile has been acceptable.

Description

Our aim of the project is to offer a SBRT-based treatment option for patients with solid tumors in selected metastatic sites. The project consists of three parts. One National Survey and two prospective, phase-II Trials (SOFT and BONY-M)

- 1) A National Survey is assessing the use of SBRT to OMD throughout the respective Oncology Departments in Denmark.
- 2) The SOFT project is evaluating the safety and efficacy of SBRT for infra-diaphragmatic soft tissue metastases in patients with OMD and no curative treatment offer. The treatment will be delivered guided by an MR-linac, optimizing strategies for daily adaptive planning. Quality-of-life data and patient-reported outcome will be collected. We expect to recruit 61 patients in 2 years and the trial opened for recruitment October 2019.
- 3) The Bony-M project is evaluating the safety and efficacy of SBRT for bone metastases in patients with OMD and no curative treatment offer. Data concerning pain reduction and quality-of-life data will be collected. We expect to recruit 67 patients in 2 years and the trial opened for recruitment November 2019.