RESEARCH TOPIC-MEM11
CANCER-ASSOCIATED FIBROBLASTS ROLE AND PET/CT IMAGING IN REFRACTORY AND RELAPSED HODGKIN DISEASE

Curriculum MEM Clinical

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Abstract
Cancer-associated fibroblasts (CAFs) trigger several pro-tumorigenic signalling pathways. Fibroblast activation protein α is overexpressed on CAF surface and tumour stroma and has been identified as a feasible target for therapy and molecular imaging using FAP-specific PET/CT.
CAF play a crucial role in the onset of resistance to chemotherapy in refractory/relapsed Hodgkin lymphoma.
The aim of the project is the identification of cancer-associated fibroblast biomarkers in prediction of refractory/relapsed Hodgkin lymphoma.
Hodgkin lymphoma patients’ candidates to first-line chemotherapy will be enrolled to correlate fibroblasts tissue biomarkers with FAPI-specific imaging. Patients will undergo FAPI PET/CT evaluation at baseline and end-of-treatment. Lymph node tissue samples will be analysed to identify cancer-associated fibroblasts specific biomarkers on fibroblast surface and in the extracellular matrix. FAPI PET/CT semi-quantitative data and molecular biology data will be matched with clinical, serum marker, FDG PET/CT semi-quantitative data and follow-up.

Main technical approaches
Pathological analyses of lymph-nodes, analyses of circulating biomarkers, synthesis of [68Ga-]Ga-DOTA-FAPI, imaging analyses of FAP PET/CT

Scientific references


**Type of contract**

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