

Title: Impact of hybrid imaging with Prostate-specific membrane antigen to target prostate cancer therapy

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Prostate cancer (PC) is the second most common cancer in men worldwide. In recent years, there has been an increasing interest in molecular imaging of PC for staging and re-staging. In particular, PET/CT and PET/MRI with radiolabelled prostate-specific membrane antigen (PSMA) have proven to be highly accurate methods for the detection of primary disease, recurrence and metastases of PC. PSMA is significantly highly expressed in PC cells and metastases, compared with normal prostate and other physiologically PSMA-expressing tissues. This characteristic has led to the development of PSMA-binding radiopharmaceuticals for diagnostic imaging and also for performing therapies on the same molecule ("theranostics"). Our presentation gives an actual overview about recent studies (our own study results included) regarding PET imaging using PSMA-specific radiotracers, such as ^{68}Gallium- and ^{18}Fluor-labelled PSMA PET/CT and PET/MRI, and the impact of these hybrid imaging tools for the management of PC and the targeting of therapeutic approaches.

Biography

Dr. Manuela Andrea Hoffmann is a Medicine Doctor and Specialist in Nuclear Medicine and also Specialist in Occupational and Preventive Medicine. From 2015 to 2019, she was the head of the Supervisory-Center-for-Medical-Radiation-Protection at the Bundeswehr-Medical-Service-Headquarters. Since June 2019, she is Deputy-Branch-Chief in the Department of Occupational Safety of the Federal Ministry of Defense. In 2018, she got the Dagmar-Eißner-Award for her research from the Central-Rhine-Society for Nuclear Medicine. Her research focuses primarily on the diagnosis and treatment of prostate cancer and is supported by Prof. Dr. Schreckenberger, Director of the Clinic of Nuclear Medicine at the Johannes Gutenberg-University of Mainz.

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