

Prostate Imaging and Therapy

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Prostate cancer (PCa) is the most common cancer in Europe and it is the first cause of cancer specific death in men^[1]. Diagnosis is based on PSA measurements and digital rectal examination (DRE), generally followed by Trans Rectal Ultrasound Guided Biopsy^[1]. Imaging is crucial in all the steps of the natural history of the disease. Most used Imaging methods are: multi parametric MRI (mpMRI)^[2] and PET/CT using Choline or PSMA^[3,4].

PET/CT could be used in all the steps of the natural history of the disease. Before diagnosis, PET/CT may be useful to address biopsy^[5] or to guide selective therapies. However, these applications are not fully validated and should be reserved to very selected cases. On the contrary, PET/CT may offer useful information to clinicians if performed in high risk patients before primary treatment, in order to accurately stage the disease^[6] and guide extended lymphadenectomy.

However, main clinical application of PET/CT remains restaging the disease in case of BCR^[3,4]. In this case, it is crucial to know whether the relapse is local or distant, if it's single or if there are oligometastasis or multiple metastasis, since different therapeutic approaches could be planned on the basis of PET/CT findings. Patients eligible for salvage treatments may be selected by PET/CT, using Choline or PSMA that may show the site of tumour recurrence in a single step examination and earlier than other conventional imaging techniques^[7,4]. The aim of the present talk is to analyse the value of PET/CT using different radiopharmaceuticals and to discuss the advantages and limitation of this diagnostic procedure in the natural history of the disease.

References:

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