Accuracy for mpMR was 52.94% and 70.79% for readers M1 and M2, respectively. Overall, fluciclovine PET had higher sensitivity and specificity compared to mpMR (Figure 1b). Inter-reader agreement for fluciclovine PET was 91.6% in the prostate and 87.5% for extraprostatic disease detection. For mpMRI, inter-reader agreement was 37.5% and 75% respectively for prostate and extraprostatic disease detection.

CONCLUSIONS: Although fluciclovine PET-CT had higher sensitivity in the prostate, MRI had higher specificity for disease detection. However for extraprostatic disease, fluciclovine had higher sensitivity and specificity. Inter-reader agreement was better with fluciclovine PET-CT compared with mpMR.

CONCLUSIONS: Although fluciclovine PET-CT had higher sensitivity in the prostate, MRI had higher specificity for disease detection. However for extraprostatic disease, fluciclovine had higher sensitivity and specificity. Inter-reader agreement was better with fluciclovine PET-CT compared with mpMR.

MP18-09 INFLUENCE OF GA-PSMA PET/CT ON CLINICAL DECISION MAKING IN THE TREATMENT OF PATIENTS WITH PROSTATE CANCER.

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INTRODUCTION AND OBJECTIVES: Positron emission tomography (PET) with Ga-Prostate Specific Membrane Antigen (PSMA) is a new imagiological technique to stage patients with prostate cancer. We aim to present the results of our preliminary analysis of 101 consecutive patients who performed this exam in our institution, exploring its utility in primary staging and re-staging after primary local treatment and its influence on clinical decision making.

METHODS: From October 2015 to September 2016, 101 consecutive patients underwent Ga-PSMA PET/CT to stage patients before primary local treatment or, to detect recurrent or progressive disease after local treatment with curative intent in case of biochemical failure or persisting high PSA levels. All the exams were performed and read by nuclear medicine doctors. After the exam, in a multidisciplinary meeting, urologists, oncologists and radiologists decided the treatment strategy in management of the patient. The exam was judged “influent” if its results, positive or negative, supported or determined a modification in clinical strategy.

RESULTS: Patients’ characteristics are presented in Table 1. Globally, Ga-PSMA PET/CT detected at least one hypermetabolic lesion in 66/101 patients (65.3%). Detection rates were 23.3%, 33.3%, 41.2% and 91.1% for PSA-levels between 0.2-0.5, 0.5-1, >1-2 and >2, respectively. Before the PET PSMA, 19 patients performed a pelvic MRI, 16 patients performed a bone scintigraphy, 7 patients a CT and 5 patients a PET-Choline exam. The concordance rate for positive pelvic MRI, 57.2% for bone scintigraphy, 66.7% for CT and 25% for PET-Choline exam. The main treatment influences of Ga-PSMA PET/CT on clinical decisions are presented in graphic 1. Decision-making was critically affected by PET-PSMA results in 81/101 (81.1%) patients.

CONCLUSIONS: We report our preliminary experience with Ga-PSMA PET/CT in primary staging and re-staging after primary local treatment. This exam influenced our clinical decisions in 81.2% of patients.

MP18-10 COMPARISON OF PLANAR SCINTIGRAPHY AND SINGLE-PHOTON EMISSION COMPUTED TOMOGRAPHY / COMPUTED TOMOGRAPHY (SPECT/CT) IN PREOPERATIVE IMAGING OF SENTINEL LYMPH NODES IN PENILE CANCER PATIENTS

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INTRODUCTION AND OBJECTIVES: The aim of this study was to evaluate the diagnostic value of SPECT/CT and planar lymphoscintigraphy in preoperative imaging of sentinel lymph nodes in penile cancer patients with non-palpable inguinal lymph nodes.

METHODS: Radio-labeling of sentinel nodes was performed by intradermal and peritumoral injection of 150MBq Tc-99 m-labelled nanocolloids according to the two day protocol. Image acquisition of