Best oral presentation: Does 11C-Choline PET/CT positive make change the treatment decision of biochemical failure in prostate cancer patients? A single institution experience
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Background. Choline positron emission tomography (PET)/computed tomography (CT) is a currently used diagnostic tool in restag-ing prostate cancer (PCa) patients with increasing prostate-specific antigen (PSA) after either radical prostatectomy (RP) and/or external-beam radiation therapy (EBRT).

Purpose. To assess the accuracy of 11C-Choline PET/CT (Chol-PET/CT) for the detection of recurrences after biochemical failure (BF) in PCa patients treated with RP, EBRT or both, and to analyse its role as a guide for tailored therapeutic strategies.

Methods. From March 2011 to February 2013, 44 studies 11C-Choline PET/CT were realized in PCa patients (p) with BF. All patients were enrolled in Gregorio Marañon Hospital (Madrid). Median age was 67.6 years [55–81]; median PSA before BF was 7.9 ng/mL [0.38–87]. Conventional imaging negative tests (CT, bone scan) and BF data make the indication to determinate the location of macroscopic/metabolic relapse.

Results. Median BF free-survival was 30.5 months [1–134]. The diagnostic accuracy of choline PET/CT in detecting sites of PCa relapse was 75%. 77% of them had been treated with initial RP and 10 patients (p) with primary EBRT. 22p showed metastases (68% nodal recurrences), 9p local recurrence and 3p had a second primary tumor. Salvage treatment options were lymphadenectomy (8p), androgen deprivation (5p), observation (4p), cryotherapy (4p) or chemotherapy (1p).

Conclusion. 11C-Choline PET/CT is a useful tool in locating persistent or recurrence disease after BF when other imaging tests are negative. This technique could change the management approach for individualised treatment of recurrence.

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