P050 Active surveillance in patients with biochemical recurrence after robot assisted radical prostatectomy with no evidence of disease on staging PSMA PET/CT

Eur Urol Open Sci 2022;45(Suppl 2):S115

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Introduction & Objectives: A substantial proportion of men with prostate cancer (PCa) undergoing robot assisted radical prostatectomy (RARP) will experience biochemical recurrence (BCR), defined as a PSA-level ≥0.2 ng/mL after initial treatment. In men with BCR, the EAU guidelines recommend to perform a PSMA PET/CT and to offer salvage radiotherapy to the prostatic fossa if the PSMA PET/CT shows no disease outside of the prostatic fossa. Previous studies suggest that it is not always necessary for patients with low-grade PCa recurrence to undergo immediate SRT. The aim of our study was to establish which men with BCR after RARP and no disease on PSMA PET/CT will benefit from early SRT and which men could be offered a surveillance protocol instead.

Materials & Methods: We retrospectively analysed 64 patients diagnosed with BCR after RARP between 2016-2022, with no evidence of disease on PSMA PET/CT and who did not undergo early SRT. For each patient the clinical and pathological features were recorded. Firstly, we determined the relative number of patients with who did not progress biochemically on follow-up. Secondly, we assessed the risk factors for disease progression. Freedom from progression (FFP) was defined as an ≤0.2 ng/mL increase in PSA or a decrease in PSA. The minimum follow-up time was 12 months.

Results: Median age was 70 years and 82.8% had intermediate- to high-risk PCa. Median initial PSA-level was 9.3 (IQR 7.3-13.0), median follow-up time after RARP was 36 months (IQR 26-52). BCR was experienced at a median time of 27 months (IQR 9-65), all patients had a negative PSMA- PET/CT at time of BCR. At one year follow-up, FFP was achieved in 33 patients (51.6%), but in two of those patients second PSMA PET/CT staging did show radiological progression. A sub analysis of 37 patients with available 2 year follow-up data showed FFP in 29.8% of the patients. Significant predictors for progression of disease were PSA doubling time (PSADT) ($p<0.01$) and time to BCR ($p<0.01$). In these preliminary results, no statistically significant associations were found between PSA-progression and EAU-risk classification, pathological tumour stage, pathological ISUP-stage or positive surgical margins.

Conclusions: In a substantial proportion of men who experienced BCR after RARP, with negative PSMA PET/CT findings and no early SRT, no progression of disease was noticed on 2 year follow-up. Low PSADT and short time to BCR were risk factors for disease progression. Patients without these risk factors may be good candidates for active surveillance. Further research is needed to identify more determinants that are associated with FFP in order to develop a surveillance protocol for those patients.