

SC70	Diagnostic accuracy of biparametric magnetic resonance imaging of the prostate (bp-MRI) in males who never underwent prostate biopsy: data after more than 350 patients enrolled
SC71	Detection of gene mutations by NGS sequencing in prostate cancer
SC72	Plasmatic exosome levels expressing PSA distinguish prostate cancer from benign prostatic hyperplasia: A prospective study in human patients
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SC74	Role of 68GA-PSMA pet/ct after radical prostatectomy in patients with biochemical recurrence: Results of a monocentric retrospective study

SC29 **Multiparametric MRI before robot-assisted radical prostatectomy allows for a greater utilization of nerve sparing with no detrimental impact on surgical margins status**

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Introduction: Multiparametric MRI (mpMRI) is increasingly used for treatment planning in patients with clinically localized prostate cancer (PCa) scheduled for surgery or radiation therapy. In this study, we assessed the impact of mpMRI on utilization of nerve sparing and surgical margins status in patients scheduled for robot-assisted radical prostatectomy (RARP).

Materials and methods: Consecutive patients with clinically localized PCa treated with RARP at our institution between 06/2017 and 09/2019 were retrospectively analysed. The study group comprised patients with preop mpMRI, the control group patients with no preop mpMRI (contraindications or urologist's preference). mpMRI was performed on a 3.0 T magnet with a PI-RADS v2-compliant protocol. One of 3 genitourinary radiologists read mpMRI, mapped all suspicious lesions, and assigned a radiological stage. Two high-volume surgeons performed all procedures. In case of available mpMRI, the operating surgeon examined report and images before the procedure to determine the dissection plan. Nerve sparing was defined as uni- or bilateral intra- or interfascial dissection. Non nerve sparing was defined as uni- or bilateral extrafascial dissection. In the study group, nerve sparing was performed in all cases of intracapsular tumour on mpMRI, irrespective of European Association of Urology (EAU) risk group. In the control group, nerve sparing was performed in EAU low- and intermediate-risk groups with <50% positive biopsy cores. RARP specimens were processed with conventional or whole-mount sections, and re-read by a single experienced pathologist. Study outcomes were rate of nerve sparing procedures and of positive surgical margins (PSMs).

Results: A total of 204 patients were included, 115 in the study and 89 in the control group. Median age was 65 years. EAU risk distribution was 49/204 (24%), 118/204 (58%) and 37/204 (18%) for low-, intermediate- and high-risk PCa. No significant differences between groups were observed for age, EAU risk group distribution, baseline urinary continence and erectile function. On definitive pathology, Grade Group >2 and stage \geq pT3 were found in 46/115 (40%) and 39/115 (34%) in the study, and in 35/89 (39%) and 31/89 (35%) in the control group, respectively ($p = 0.45$ and 0.29). A nerve sparing procedure was performed in 66/115 (57%) and 31/89 (35%) patients in the study and control group, respectively ($p = 0.01$). PSMs rate was 17/115 (15%) and 12/89 (13%) in the study and control group, respectively ($p = 0.11$).

Conclusions: Utilization of mpMRI in surgical planning before RARP versus no utilization allowed a higher number of nerve-sparing procedures to be performed with no increase in PSMs rate. Larger, multi-institutional, possibly randomised, studies are warranted to further ascertain the role of prostate mpMRI in treatment planning.

SC30 **Micro-ultrasound guided and MRI-targeted prostate biopsies for clinically significant prostate cancer diagnosis in the initial biopsy setting a cohort of biopsy-naïve patients**

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Introduction: Prostate mpMRI holds an early place in the EAU prostate cancer (PCa) diagnostic pathway, yet it is affected by drawbacks in terms of costs and availability while requires concomitant systematic biopsies. Micro-ultrasound (micro-US) has emerged as an alternative tool able to provide real-time identification and targeting of prostatic lesions. Our aims was to evaluate the diagnostic performance of micro-US in a biopsy-naïve population of patients with recent mpMRI and clinical suspicion of PCa.

Materials and methods: Data on patients imaged with the Exact-Vu micro-US system during prostate biopsies at our centre between October 2017 and February 2020 were prospectively collected. 273 biopsy naïve patients with a clinical suspicion of PCa and prostate mpMRI were identified. PRI-MUS protocol was applied to identify suspicious lesions (PRIMUS score ≥ 3) which received 1–2 target biopsy cores. The procedure was completed with systematic biopsy and mpMRI-targeted biopsy of suspicious (i.e. PI-RADS ≥ 3) lesions. The detection rate of clinically significant PCa (defined as Gleason score ≥ 7 cancer; csPCa) was determined. The diagnostic performance of micro-US targeted, systematic, mpMRI-targeted biopsies and their combination was assessed.

Results: Mean patient age was 64.9 (SD8.1) yr, median total PSA was 6.5 (IQR 4.7–8.6) ng/mL and median prostate volume was 47 (IQR 35–68) mL. Suspicious lesions were identified by micro-US and mpMRI in 215 (78.8%) and 255 (93.4%) patients, respectively. Overall csPCa detection rate was 44.3% (121/273). CsPca rates significantly increased from 17.2% (5/29) to 44.9% (61/136) to 78.0% (39/50) in patients with PRI-MUS 3, 4 and 5 lesions, respectively ($p < 0.01$). CsPca detection rates significantly increased from 20.0% (10/50) to 45.7% (74/162) and 83.7% (34/43) in patients with PI-RADS 3, 4 and 5 lesions, respectively ($p < 0.01$). Combination of micro-US targeted and randomized biopsies detected 119 (98.3%) patients, while combination of MRI-targeted and randomized biopsies also detected