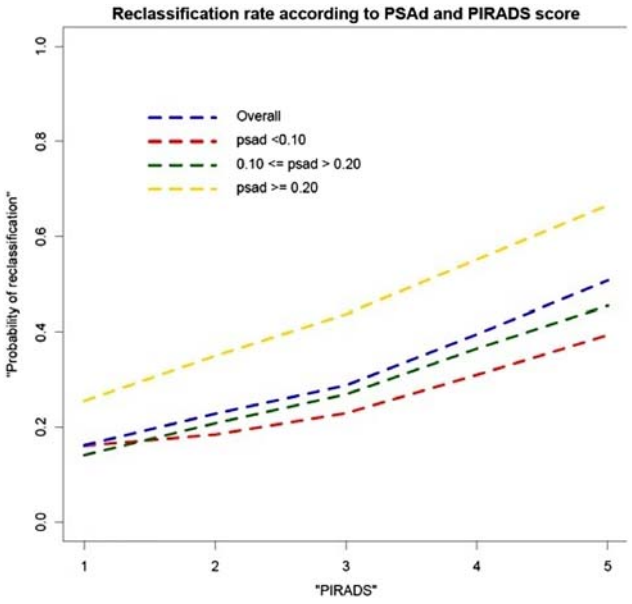
(3 + 3) and/or < =2 positive core; PRIAS: GS < =6 (3 + 3). The correlation between bioptic Gleason Score and PI-RADS has been verified with Chi-square test and the elaboration of the ROC curve.
Results: In our study we had 16 patients PI-RADS ≤ 3 and 31 patients PI-RADS ≥ 4. According to EAU criteria our biopsy findings were a confirmation of the diagnosis in 20 patients, whereas 27 reported an upgrade. The results are statistically significant (p = 0,004). Up to 77,4% of the PI-RADS ≥ s4 showed a bioptic upgrade, in contrast with only 18,8% of the PI-RADS ≤ 3. The ROC curve analysis on the bioptic upgrade findings related to the PI-RADS score, confirmed the cut off ≥ 4 as the indicator for bioptic upgrade, with a sensibility of 88,9% and specificity of 65%. Bioptic findings using PRIAS classification showed a confirmation of the diagnosis in 29 patients and an upgrade in 18. Up to 54,8% of the PI-RADS ≥ 4 showed an upgrade, compared with only 6,2% of the PI-RADS ≤ 3. With the application of PRIAS criteria, ROC curve analysis demonstrates a greater sensibility (94,4%) in the bioptic upgrade identification when PI-RADS ≥ 4.
Discussion: Our study highlights the importance of the mpMR in guiding the targeted biopsies and clinical decision process in this setting of patients.

SC44 Magnetic Resonance Imaging and Ultrasound Fusion Biopsy in follow-up of patients in Active Surveillance protocol. Can PSA density discriminate patients at higher risk of reclassification?

M. Roscigno, A. Stabile, G. Lughezzani, P. Pepe, A. Galosi, M. Nicolai, G. La Croce, A. Naselli, A. Briganti, G. Guazzoni, L. Da Pozzo (*Bergamo*)

Aim of the study: Multiparametric (mp)MRI is increasingly used in the management of patients in Active Surveillance (AS). The aim of the study is to evaluate the rate of reclassification in men in AS, stratified on the basis of PI-RADS lesions and PSA-density (PSAD).
Materials and methods: F rom 01/2016 to 03/2019 399 pts underwent mpMRI before confirmatory/follow-up biopsy according to PRIAS protocol. Pts with negative (-) mpMRI subsequently underwent systematic random biopsy. Pts with positive (+) mpMRI (PI-RADS-V2 score ≥ 3) underwent targeted fusion prostate biopsies (3 cores) + systematic random biopsies (12–18 cores). The primary objective of the study was the rate of reclassification, defined as the presence of clinically significant (cs)PCa with Gleason score ≥3 + 4. Different PSAD cut-off values were tested (<0.10; 0.10–0.20; ≥0.20). Multivariable logistic regression analyses (MVA) were used to predict the risk of overall reclassification during follow-up according to PSAD, after adjusting for covariates.
Results: Median patient age, PSA and PSAD were 67 yrs, 6.3 ng/ml, and 0.12 ng/ml/cm3. Median number of positive cores at initial biopsy was 1 (IQR:1,2). One-hundred five pts (27.3%) had mpMRI(-); 80 pts (20.0%), 168 (42.1%), and 46 (11.5%) had PI-RADS 3,4, and 5 lesions, respectively. At a median follow up of 12 months, 124 patients (31.1%) were reclassified. In pts with mpMRI(-) the rate of reclassification was 21%. while was 31%, 34% and 53% according to PI-RADS 3, 4 and 5, respectively. When we stratified to PSAD, in case of PSAD <0.10 the rate of reclassification was 16%, 22%, 31%, 40% for mpMRI(-),PI-RADS 3, 4 and 5, respectively. In case of PSAD =>0.20 the rate of reclassification was 25%, 35%, 55%, 67% for mpMRI(-),PI-RADS 3, 4 and 5, respectively (Fig.1). At MVA, PSAD = >0.20 (p = 0.036; OR 1.9), PI-RADS 4 (p = 0.030; OR: 2.0) and PI-RADS 5 (p < 0.001; OR 4.8) were associated with the higher risk of reclassification, together with the number of positive cores at baseline (p = 0.001; OR 1.4).



Discussion: PSAD ≥0.20 may improve predictive accuracy of mpMRI results for reclassification of low-risk PCa pts in AS. PSAD <0.10 may help selection of pts at lower risk of harboring csPCa, in the PI-RADS 3,4 and 5 groups. However, it should be highlighted that the risk of reclassification is not negligible at any PSAD cut-off value, also in case of mpMRI(-).

SC45 Diagnostic performance of micro-ultrasound in a contemporary cohort of patients in active surveillance for localized prostate cancer: A single-institutional experience

G. Bevilacqua, D. Maffei, M. Paciotti, M. Lazzeri, P. Colombo, P. Diana, L. Domanico, A. Saita, P. Casale, R. Hurle, N. Buffi, G. Guazzoni, G. Lughezzani (*Rozzano*)

Aim of the study: Active surveillance (AS) represents an important alternative to active treatment strategies in patients diagnosed with low-risk prostate cancer (PCa). However, proper selection of AS candidates represents one of the most challenging tasks for urologists. Multiparametric MRi has recently been proposed as an effective diagnostic tool to properly select patients for AS, but its large-scale adoption is still limited by cost-effectiveness considerations. Micro-ultrasound (microUS) is a new imaging modality with a spatial resolution down to 70 μm. We explore the diagnostic effectiveness of microUS within a contemporary cohort of AS patients.
Materials and methods: Data on 68 patients who were previously enrolled in the PRIAS protocol and subsequently imaged with the ExactVu micro-US system between October 2017 and April 2019 were prospectively collected. All patients were scheduled for a confirmatory prostatic biopsy. The PRI-MUS protocol was used to locate targets on microUS. Lesions with a PRI-MUS score ≥3 were targeted. All patients were also subjected to systematic prostatic biopsies. The presence of overall and of clinically significant PCa (defined as a Gleason score ≥7 cancer; csPCa) was determined. The proportion of patients who were excluded from AS either for upgrading to csPCa or for increasing number of positive cores (≥2) at confirmatory biopsies was determined, and the diagnostic performance of microUS in this setting was determined.
Results: Median patient age was 65 (IQR 60–71) years, median total PSA was 7.1 (IQR 5.1 – 9.5) ng/mL and median prostate volume was 47.7