p = 0.5), cT2a (3.2 vs. 6.5%, p = 0.4), and use of MRI during AS (55.8 vs. 55.2%, p = 0.9) were seen. Overall, 45 (47.4%) and 76 (37.8%) patients aged ≤60yr and >60yr, respectively progressed during AS. Unadjusted progression-free rates at 2 years of followup were 29.9 vs. 30.2% for younger vs. older patients, respectively (p = 0.54). At MVA analyses, younger age was not associated with increased risk of progression (HR: 1.27; 95%CI: 0.71–2.31; p = 0.4). Finally, RP was performed in 30 (66.7%) younger and in 36 (47%) older patients, respectively. Pathological evaluation of RP patients showed adverse characteristics in 8 (24.2%) younger vs. 21 (51.2%) older patients, respectively (p = 0.03).

Discussion: Even applying less stringent criteria for inclusion in AS, younger age was not associated with increased risk of progression in AS or with more adverse pathological characteristics at RP after AS. Young patients are those who may gain the highest benet from an AS approach without being exposed to increasing risk of progression or misclassication.

SC37 Do we really need detailed biopsy assessment of patients with low-risk prostate cancer candidate to active surveillance? A prospective validation of the ISUP recommendation

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Aim of the study: A recent report of the International Society of Urological Pathology (ISUP) recommend accurate histopathologic assessment at biopsy to properly select low-risk prostate cancer (PCa) patients suitable for active surveillance (AS). However, the outcome of AS is excellent even when all men with low risk PCa are considered regardless of the extent of cancer involvement at biopsy. Therefore, we examined whether such detailed biopsy assessment is really needed and capable to predict the risk of progression during AS in low risk patients.

Materials and methods: Between 2010–18, 248 patients with low risk PCa (PSA < 10 ng/ml, cT ≤ 2a and biopsy Gleason Score [GS] 6) were prospectively enrolled in our AS program. Patients referred from other institutions underwent central biopsy review. Only patients with all available ISUP criteria (n = 174) were included. Uni- and multi-variable (UVA and MVA) Cox regression models tested the effect of each ISUP criteria (number of cores taken, number of positive cores per side and percentage of cancer in the most involved core) on the risk of progression during AS. Covariates included baseline PSA, prostate volume, cT stage, age and use of mp-MRI. Progression was dened as upgrade in GS (≥3 + 4). Finally, C-index assessed and compared the discrimination of the models with and without ISUP criteria.

Results: Median number of cores examined, median % of positive cores, mean % of positive cores in dominant side and median % of PCa in dominant core were 17.5, 7.1%, 96.3% and 5%, respectively. 96 men (55.2%) had mp-MRI performed before conrmatory biopsy. Within a median follow-up of 27.5 months, 63 patients experienced progression. At UVA, only % of PCa in dominant core (HR 1.02; p = 0.03), baseline PSA (HR 1.10; p = 0.03) and mpMRI (HR 0.55; p = 0.03) were associated with the risk of AS progression. At MVA, none of the examined ISUP criteria reached independent prediction status (all p > 0.2). Only PSA and mp-MRI represented independent predictors (HR 1.17 and 0.3, respectively; all p < 0.005). The same C-Index was obtained for the predictive models with and without ISUP criteria (0.79 for both models).

Discussion: Our results showed that none of the detailed biopsy features recommended by ISUP represented independent predictors of AS progression after accounting for the use of mp-MRI as well as clinical variables. Therefore, although such variables might be considered reliable proxies of tumor volume and PCa multi-focality, their use is at least questionable in clinical practice for patients candidate to AS.

SC38 A novel nomogram to identify candidates for active surveillance among patients with International Society of Urological Pathology Grade Group 1 prostate cancer diagnosed with systematic biopsies and submitted to multiparametric magnetic resonance imaging

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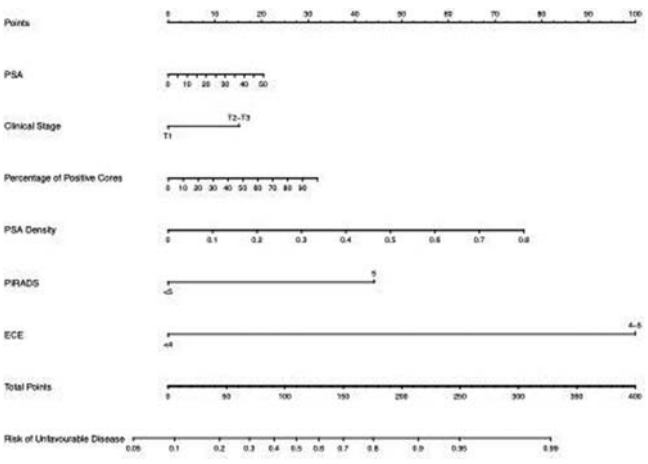
Aim of the study: To create a novel nomogram for including a greater proportion of men in active surveillance (AS), compared to Prostate Cancer Research International: Active Surveillance (PRIAS) criteria, without compromising AS oncologic safety.

Materials and methods: Overall, 1,103 patients with ISUP GG 1 prostate cancer submitted to radical prostatectomy and to multi-parametric magnetic resonance imaging (mpMRI) were included. The outcome of interest was the presence of unfavourable disease (csPCa): ISUP GG ≥ 3 and/or pT ≥ 3a and/or pN1. Logistic regression models including PRIAS (Model 0), and a multivariable model including PSA, cT, PSA-D, and the percentage of positive cores (PCP) (Model 1), were fitted; subsequently PI-RADS (Model 2), extracapsular (ECE) score (Model 3), and PI-RADS+ECE score (Model 4) were added to Model 1. Discrimination was measured by the area under the ROC curve (AUC). Decision-curve analyses (DCA) determined the clinical net benefit associated with the best performing model.

Results: Overall, 371 (33.6%) men presented csPCa. Moreover, 348 (31.6%) patients respected PRIAS criteria and, of them, 89 (25%) harboured csPCa. Model 4 had the greatest AUC (0.83 vs 0.56 of Model 0; p < 0.001). Significant predictors (all p < 0.001) at multivariate analysis were PSA-D (OR:1.2), ECE score (OR:8.2 for ECE score ≥4) and PI-RADS (OR:2.5 for PI-RADS 5). Moreover, PSA (OR:1.01), cT (OR:1.4) and PCP (OR:1.1) were included. The adoption of a risk score based on Model 4 improved clinical risk prediction against threshold probabilities of csPCa approximately between 21% and 75%. Using a 25% threshold would increase the proportion of AS eligible patients from 31.6% (PRIAS) to 62.3% with an estimated risk of csPCa of 13.4%



Discussion: A novel nomogram that includes clinical, bioptic and mpMRI findings, is able to increase of roughly ~30% the absolute number of patients suitable for AS, compared to PRIAS, with an