



SS01

Scientific Session 1

09:20-10:50

GBR 102

Chairperson(s):

Young Sup Shim (Gachon University Gil Medical Center, Korea)

Jung Jae Park (Chungnam National University Hospital, Korea)

09:20-09:30 (SS01-P1)

Disconcordance of Systemic Biopsy to MRI-Guided Core Biopsy and Radical Prostatectomy Pathology for Gleason Grade (GG) 1-2 Lesions: Analysis for GG Upgrade at Radical Prostatectomy

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PURPOSE: To review findings from MR-fusion biopsy Gleason grade group (GG) ≤ 2 lesions to compare concordance to radical prostatectomy (RP) pathology.

MATERIALS AND METHODS: We retrospectively reviewed the records of 6,023 men who underwent RP at our institution from 2003 to 2022. Total 476 cases who underwent MR-guided fusion biopsy prior to RP and harbored $GG \leq 2$ tumors were included in final analysis. All patients uniformly underwent 12 core systemic biopsy with additional 2 biopsy per index lesion identified at MR. Clinical variables including age, PSA, positive cores, max core involvement, as well as concordance of GG estimates from systemic biopsy and targeted cores were evaluated.

RESULTS: Of all patients, 93.5% (445) had tumors identified in sextant biopsy, with 6.5% positive cores found only in MR-targeted lesions. A high disconcordance rate of 21.8% was found between GS categorized via systemic vs. targeted biopsy, of whom 28.8% was upgraded by fusion biopsy. Total 49.4% (235) of all cases had GG upgrade in RP pathology with nearly half to $GG \geq 3$ (128), with GG predicted with systemic biopsy significantly more likely to be upgraded after RP (76.7% vs. 35.5%). Of 100 (21.0%) patients eligible for AS ($\leq T2a$, $PSA \leq 10$, ≤ 2 cores with $\leq 50\%$ involvement), 16 were upgrade by fusion biopsy and 14 harbored $GG \geq 3$ tumors at RP. No differences in BCR-free survival were identified as a result of GG discrepancy ($p=0.995$).

CONCLUSION: A high rate of discordance between systemic and targeted biopsy cores were identified, with nearly 30% upgraded by targeted cores. As GG estimated by sextant biopsy is more likely to be upgraded at RP pathology, clinicians should caution against enrolling patients for AS based on conventional 12-core biopsy results.