PD17-05

Lack Of Accuracy Of Selection Criteria In Low-risk Prostate Cancer Patients Eligible For Focal Treatment

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INTRODUCTION

- Radical treatment for localized prostate cancer (PCa) could overtreat many clinically non-significant cases. Focal ablative therapies have been introduced for these cases.

- The multifocal nature of PCa and the inability of current imaging to accurately identify all the PCa foci have been postulated to negatively impact on focal therapy efficacy.

- We conducted a retrospective single-center study on patients who underwent radical prostatectomy (RP) for low-risk PCa, with the aim to evaluate the nature of these PCa at the surgical specimen, and their eligibility for focal therapy.

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MATERIALS & METHODS

Retrospective analysis of **151 patients** who underwent RP for low-risk PCa (Gleason Score ≤ 3+3 and PSA ≤ 10 ng/ml)

between January 2016 and December 2018

ELIGIBLE CRITERIA
Prostate biopsy performed in our Institution
Bioptic Gleason Score ≤ 3+3
≤ 4 positive cores
≤ cT2a
PSA ≤ 10 ng/ml
PSAD ≤ 0.2 and prostate volume ≤ 70 cm^3
No previous treatment for PCa
No previous treatment for BPH

Patients eligible for focal therapy: **50 (33%)**
Pre-biopsy prostate mpMRI: 29 (58%)

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RESULTS

HISTOLOGICAL FINDINGS IN PATIENTS ELIGIBLE FOR FOCAL THERAPY

Prostate biopsy

	n (%)
Bilateral positive cores	19 (38)
Unilateral positive cores	31 (62)
Unilateral unifocal	*0 (0)*
Unilateral multifocal	*25 (81)*
One focus (≥ 2 close positive cores) plus distant positive unilateral cores	*6 (9)*

More than 50% of patients with bioptic GS ≤ 6 had a histological upgrade at the RP specimen (both in the total number of patients and in those with unilateral positive cores).

Radical prostatectomy

	n (%)
Upgrading (overall)	28 (56)
Gleason Score 3+4	*23*
Gleason Score 4+3	*3*
Gleason Score 4+4	*2*
Undetermined Gleason Score	1 (2)
Gleason Score 3+3	21 (42)
Upgrading in patients with unilateral disease	16 (52)
Gleason Score 3+4	*14*
Gleason Score 4+3	*2*
Gleason Score 4+4	*0*
Undetermined Gleason Score	1 (3)
Gleason Score 3+3	14 (45)

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RESULTS

HISTOLOGICAL FINDINGS IN PATIENTS WITH UNILATERAL DISEASE AT THE BIOPSY

	n (%)
Unilaterality at biopsy	31/50 (62)
Unilaterality at the surgical specimen	14/31 (45)
Unilateral and multifocal	5
Unilateral and unifocal	9

UNILATERAL POSITIVE CORES CONFIRMED AT THE SURGICAL SPECIMEN (14/31):

	N°(%)
Pathological Gleason Score 3+3	7/14 (50)
Unifocal	5
Multifocal	2
Pathological Gleason Score > 3+3	7/14 (50)
Gleason Score 3+4	*5*
Gleason Score 4+3	*2*
Unifocal	6
Multifocal	1

More than 50% of patients with unilateral PCa at biopsy had a bilateral PCa at the RP specimen
(14/17 of those: multifocal)

The 50% of patients with unilateral PCa confirmed at the surgical specimen presented a GS > 6

RESULTS

HISTOLOGICAL FINDINGS IN PATIENTS WITH BILATERAL DISEASE AT THE BIOPSY

Confirmed bilaterality (n=17)	**n (%)**
Pathological Gleason Score 3+3	6 (35)
Unifocal	2
Multifocal	4
Pathological Gleason Score > 3+3	11 (65)
Gleason Score 3+4	*8*
Gleason Score 4+3	*1*
Gleason Score 4+4	*2*
Unifocal	1
Multifocal	10

Confirmed bilateral PCa showed an histologic upgrade in 65% of cases

mpMRI FINDINGS

mpMRI (n=29)	**n (%)**
PI-RADS ≤ 3	20 (68)
PI-RADS 4	9 (32)
Unilateral nodule	27 (93)
Unilateral histology at RP	8 (26)
Bilateral nodules	2 (7)
Bilateral histology at RP	2 (7)
Correlation mpMRI-histology at RP	22,2%
Cohen's k coefficient	*-0,34*

There is a weak matching between the radiological and the surgical findings.

CONCLUSIONS

- In our experience, there is a weak correlation between the bioptic/radiological (mpMRI) findings and the findings at the surgical specimen in patients with bioptic Gleason Score ≤ 3+3 and PSA ≤ 10 ng/ml
- mpMRI is not a fully reliable tool in the selection of patients eligible for focal therapy.
- In our study, only 10% of patients had a unilateral, unifocal, and low grade (Gleason Score 3+3) disease at the surgical specimen.
- Our data emphasize the current need for improving the selection of PCa patients eligible for focal treatment.
- Moreover, there is an emerging need to establish *active surveillance* protocols for the untreated prostate gland, to detect contralateral/multifocal early stage diseases.

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