30- Pathological outcomes in favourable vs unfavourable intermediate risk prostate cancer

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OBJECTIVES

We compared pathological outcomes of favourable intermediate risk (FIR) and unfavourable intermediate risk (UIR) prostate cancer.

METHODS

We conducted a retrospective analysis in patients with intermediate risk PCa who underwent Laparoscopic Radical Prostatectomy (LRP).

FIR
GS 3+4 and
≤ 50% +ve cores and
≤ 1 risk factor (≥cT2b, PSA 10-20 ng/ml)

vs

UIR
GS 3+4 and > 50% +ve cores or
GS 3+4 and >1 risk factor or
GS 4+3

Endpoints
Upgrading, downgrading,
Upstaging (≥ pT3), PSM, LNI,
Adverse disease (≥pT3 or ≥ GS 4+3 or pN1)

We correlated FIR and UIR with endpoints;
We stratified patients according to number of unfavourable intermediate risk factors (UIRF);

RESULTS

From our database we identified 177 intermediate risk patients. Baseline characteristics of the patients are described in table 1. UIR patients presented higher PSA, PSAD, higher positive core percentage and more extended lymphonode dissection template. UIR patients had increased risk of pathological upstaging and downgrading, worse pathological grading and worse adverse pathological outcomes (table 2). When stratified by number of UIRF, patients with more than one UIRF had higher risk of upstaging, upgrading and adverse pathology than patients with no UIRF (table 3).

Table 1. Baseline characteristics

		FIR	UIR	p value
pts	n (%)	56 (31.6)	121 (68.4)	
Age	y	66.0 ±5.9	66.3 ±5.7	0.73
BMI	n (SD)	27.6 ±3.2	26.7 ±3.6	0.21
PSA	ng/ml	7.7 ±3.4	10.2 ±6.1	0.06
PSA	0.1-10.0 10.1-20.0	85.7 14.3	62.8 37.2	**0.002**
Prostate volume	cc (SD)	56.2 ±20.4	52.8 ±19.3	0.32
PSAD	ng/ml/cc	0.16 ±0.98	0.21 ±0.14	**0.01**
Glason bx	3+4 4+3	100 0	28.9 71.1	**<0.001**
Clinical stage	T1c T2a T2b T2c	55.4 23.2 21.4 0	42.2 15.7 38.8 3.3	0.053
% +ve cores group	0.1-50 % 50.1-100%	100 0	56.2 43.8	**<0.001**
LAD template	Extended Superext.	98.2 1.8	85.9 14.1	**0.003**
N° of removed nodes	n (SD)	17.4 ±9.9	20.1 ±9.3	0.09

Table 2. Pathological outcomes

		FIR	UIR	p value
Pathological Stage	T2a T2b T2c T3a T3b	19.6 7.1 62.5 10.7 0	2.5 7.4 52.1 27.3 10.7	**0.001**
ECE	% (n)	10.7	38.0	**<0.001**
Pathological Gleason	3+3 3+4 4+3 4+4 >8	3.6 67.9 25.0 3.6 0	2.5 32.2 47.9 13.2 4.1	**<0.001**
Upgrading	%	28.6	26.4	0.9
Downgrading	%	3.6	18.2	**0.01**
PSM	%	12.5	20.7	0.21
Nodal mets	%	0	5.8	0.13
Adverse disease	%	12.5	50.4	**<0.001**

Table 3. Pathological outcomes stratified by number of intermediate risk factors

	Incidence %			p value		
	Group 1 FIR -0 UIRF	Group 2 FIR – 1 UIRF	Group 3 UIR - >1 UIRF	Group 2 vs 1	Group 3 vs 1	Group 3 vs 2
ECE	5.6	20.0	34.3	0.09	**0.002**	0.26
Upgrading	19.4	45.0	42.9	**0.04**	**0.03**	0.88
Downgrading	7.1	0	0	0.25	0.12	-
PSM	11.1	15.0	5.7	0.67	0.41	0.25
Nodal mets	0	0	8.6	-	0.20	0.34
Adverse disease	8.3	20.0	40.0	0.21	**0.002**	0.13

CONCLUSIONS

In our experience patients with UIR prostate cancer have increased risk of ECE, downgrading and adverse pathological outcomes than patients with FIR prostate cancer. Therefore, number of unfavourable risk factors seems to correlate with risk of extracapsular extension, upgrading and adverse pathological findings.