31- Predictive factors of pathological outcomes in intermediate risk prostate cancer

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OBJECTIVES

Risk classification is the cornerstone of management of prostate cancer. intermediate risk remained as miscellaneous group with a wide biological and clinical behaviour. The definition of predictive factors of unfavourable disease allows to substratify these patients optimizing management of intermediate risk prostate cancer. In our study we evaluated the risk of pathological unfavourable outcomes and predictive factors of adverse disease in patients with intermediate risk prostate cancer..

METHODS

From database of our institution, we identified patients with intermediate risk prostate cancer (GS 7, cT1c-T2b, PSA <20 ng/ml) undergoing laparoscopic radical prostatectomy. We correlated clinical and pathological variables with upstaging (≥pT3), upgrading, positive surgical margins (PSM), lymphonode metastases (LNI) and adverse disease (≥pT3 or >GS4+3 or pN1).

RESULTS

We identified 182 intermediate risk patients. Baseline characteristics of the patients are reported in table 1. More than one third of patients (37.9%) presented adverse disease (table 2). At multivariate analysis only PSA and biopsy Gleason score were found to be predictive factors of pathological outcomes (table 3). PSA was associated with downgrading and adverse disease, while Gleason score was correlated with downgrading, adverse disease, upstaging and positive surgical margins.

Table 1. Baseline characteristics

pts	N	182
Age	y	66.3 ±5.7
BMI	n (SD)	27.0 ±3.4
PSA	ng/ml	9.4 ±5.5
PSA group	0.1-10.0 10.1-20.0	68.7 31.3
Volume	cc (SD)	53.9 ±19.5
PSAD	ng/ml/cc	0.20 ±0.13
Glason bx %	3+4 4+3	52.2 47.8
Clinical stage %	T1c T2a T2b	47.2 18.1 34.7
% +ve cores	% (SD)	41.6 ±24.9
% +ve cores group	0.1-50 % 50.1-100%	69.8 30.2
LAD template	Extended Superext.	90.1 9.9
N° of nodes	n (SD)	19.0 ±9.6

Table 2. Pathological outcomes

Path. Stage	T2a T2b T2c T3a T3b	7.1 7.7 56.0 21.5 7.7
ECE	% (n)	29.1
Path. Gleason	3+3 3+4 4+3 4+4 >8	3.2 43.4 40.1 10.4 2.7
Upgrading	%	26.9
Downgrading	%	13.7
PSM	%	18.7
Nodal mets	%	3.8
Adverse disease	%	37.9

Table 3. Multivariate analysis

p value	Upstaging	Upgrading	Downgrading	+ve SM	N+	Adverse pathology
Age	0.24	0.11	0.82	0.24	0.78	0.58
BMI	0.41	0.39	0.65	0.60	0.20	0.37
PSA	0.07	0.12	0.12	0.06	0.31	0.27
PSA group	0.1	0.31	**0.02 OR 0.15 95%CI 0.03-0.73**	0.29	0.81	**0.03 OR 2.29 95%CI 1.10-4.77**
Prostate volume	0.06	0.95	0.07	0.10	0.33	0.37
PSAD	0.06	0.72	0.11	0.07	0.30	0.61
Gleason score 3+4 vs 4+3	**0.01 OR 2.43 95%CI 1.2-4.9**	0.09	**<0.001 OR 16.74 95% CI 0.65-78.44**	**0.005 OR 3.46 95% CI 1.46-8.18**	0.78	**<0.001 OR 4.04 95% CI 2.03-8.08**
% +ve cores	0.33	0.65	0.43	0.19	0.39	0.46
% +ve cores group ≤50% vs >50%	0.17	0.89	0.23	0.8	0.85	0.13
Clinical stage cT1c/2a vs cT2b-c	0.14	0.11	0.41	0.3	0.49	0.16
LAD template	0.19	0.54	0.55	0.16	0.96	0.79
N° nodes removed	0.49	0.56	0.42	0.19	0.85	0.27

CONCLUSIONS

In our experience in patients with intermediate risk prostate cancer, adverse pathological outcomes occurred in 38% of the patients. PSA and Gleason score were predictive factors of downgrading, adverse pathological outcomes, upstaging and positive surgical margins.