

The univariate analysis of clinicopathological features associated with overall survival				
Variable	Category	HR	95% CI	P value
LVI	positive=1, negative=2	1.40	0.88–2.23	0.16
Pathological stage	PTa/1=1, PT2=2, PT3=3, PT4=4			0.007
PTa/1 vs. PT2		0.17	0.02–1.28	0.09
PTa/1 vs. PT3		6.48	0.88–47.46	0.07
PTa/1 vs. PT4		0.34	0.05–2.51	0.29
PT2 vs. PT3		0.91	0.50–1.66	0.76
PT2 vs. PT4		2.01	1.08–3.74	0.029
PT3 vs. PT4		2.20	1.31–3.70	0.003
Local recurrence	Yes = 1, No = 0	1.83	1.16–2.89	0.01
LNM	Yes = 1, No = 0	0.59	0.36–0.95	0.03
Liver metastasis	Yes = 1, No = 0	0.47	0.29–0.77	0.002
age at metastasis	<63=0, ≥63=1	0.62	0.38–1.01	0.06
No.of visceral metastasis	≤1=1, ≥2=2	0.63	0.40–0.99	0.04
Surgical approach	Open=1, mini-invasive=2	0.67	0.38–1.16	0.15
Dissection of prostate	Yes = 1, No = 0	1.63	0.93–2.83	0.09
Anterior wall	Yes = 1, No = 0	1.67	0.83–3.35	0.15
Prostate metastasis	Yes = 1, No = 0	1.55	0.90–2.68	0.11
Gender	Male=1, Female=2	0.76	0.44–1.31	0.32
Somking history	Yes = 1, No = 2	0.86	0.55–1.35	0.51
Adjuvant therapy	Yes = 1, No = 2	0.86	0.49–1.49	0.58
Local treatment of metastases	Yes = 1, No = 2	0.76	0.46–1.24	0.27
Dissection of lymph node	Yes = 1, No = 0	0.82	0.52–1.29	0.39
Tumor size	1: ≤3 cm, 2: ≥3 cm	1.15	0.71–1.88	0.57
Growth mode	Single = 1, Multifocal = 2	1.27	0.79–2.03	0.32
Grade	1=G1/G2, 2=G3	0.63	1.20–2.00	0.44
Carcinoma in situ	Yes = 1, No = 2	0.05	0–37.73	0.37
Urothelial carcinoma	Yes = 1, No = 0	0.46	0.11–1.86	0.27
Adenocarcinoma	Yes = 1, No = 0	1.15	0.65–2.02	0.63
Squamous cell carcinoma	Yes = 1, No = 0	0.83	0.43–1.61	0.58
Sarcomatoid carcinoma	Yes = 1, No = 0	1.53	0.38–6.26	0.55
Lateral wall	Yes = 1, No = 0	0.88	0.56–1.40	0.59
Posterior wall	Yes = 1, No = 0	1.47	0.82–2.62	0.19

Triangular area	Yes = 1, No = 0	1.07	0.69–1.68	0.76
Top wall	Yes = 1, No = 0	0.97	0.39–2.41	0.94
Bladder neck	Yes = 1, No = 0	1.20	0.55–2.60	0.65
Marginal state	Yes = 1, No = 0	0.75	0.41–1.36	0.34
Lung metastasis	Yes = 1, No = 0	0.87	0.55–1.38	0.55
Bone metastasis	Yes = 1, No = 0	0.73	0.43–1.23	0.24
Brain metastasis	Yes = 1, No = 0	0.48	1.12–1.96	0.3

The univariate analysis of clinicopathological features associated with cancer-specific survival				
Variable	Category	HR	95% CI	P value
Prostatectomy	Yes = 1, No = 0	1.97	1.08–3.61	0.03
Pathological stage	PTa/1=1, PT2=2, PT3=3, PT4=4			0.003
PTa/1VS PT2		5.68	0.75–43.12	0.09
PTa/1 vs. PT3		6.42	0.88–47.06	0.07
PTa/1 vs. PT4		2.63	0.35–19.52	0.34
PT2 vs. PT3		0.88	0.48–1.64	0.7
PT2 vs. PT4		2.16	1.13–4.13	0.02
PT3 vs. PT4		2.44	1.43–4.18	0.001
Local recurrence	Yes = 1, No = 0	2.10	1.31–3.35	0.002
LNМ	Yes = 1, No = 0	0.56	0.34–0.94	0.03
Liver metastasis	Yes = 1, No = 0	0.42	0.26–0.69	0.001
Prostate metastasis	Yes = 1, No = 0	1.86	1.03–3.35	0.04
No.of visceral metastasis	≤1=1, ≥2=2	0.60	0.37–0.96	0.03
Surgical approach	Open=1, mini-invasive=2	0.61	0.34–1.07	0.08
Bone metastasis	Yes = 1, No = 0	0.66	0.39–1.12	0.13
Anterior wall	Yes = 1, No = 0	1.78	0.85–3.72	0.12
age at metastasis	<63=0, ≥63=1	0.68	0.42–1.12	0.13
Gender	Male=1, Female=2	0.75	0.43–1.33	0.33
Somking history	Yes = 1, No = 2	0.92	0.57–1.46	0.71
Adjuvant therapy	Yes = 1, No = 2	0.92	0.52–1.60	0.76
Local treatment of metastases	Yes = 1, No = 2	0.68	0.41–1.12	0.13
Dissection of lymph node	Yes = 1, No = 0	0.86	0.54–1.38	0.54
Dissection of prostate	Yes = 1, No = 0	1.97	1.08–3.61	0.03
Tumor size	1≤3cm, 2=≥3cm	1.11	0.67–1.84	0.69
Growth mode	Single = 1, Multifocal = 2	1.24	0.76–2.01	0.69
Grade	1=G1/G2, 2=G3	0.44	0.11–1.80	0.25
Carcinoma in situ	Yes = 1, No = 2	0.05	0–43.9	0.38

Urothelial carcinoma	Yes = 1, No = 0	0.48	0.12-1.97	0.31
Adenocarcinoma	Yes = 1, No = 0	1.16	0.65-2.08	0.62
Squamous cell carcinoma	Yes = 1, No = 0	0.76	0.39-1.48	0.42
Sarcomatoid carcinoma	Yes = 1, No = 0	1.41	0.35-5.77	0.63
Lateral wall	Yes = 1, No = 0	0.82	0.51-1.33	0.42
Posterior wall	Yes = 1, No = 0	1.49	0.82-2.71	0.2
Triangular area	Yes = 1, No = 0	1.06	0.67-1.69	0.8
Top wall	Yes = 1, No = 0	1.52	0.48-4.83	0.48
Bladder neck	Yes = 1, No = 0	1.11	0.51-2.43	0.79
Marginal state	Yes = 1, No = 0	0.66	0.35-1.25	0.2
Lung metastasis	Yes = 1, No = 0	0.78	0.49-1.25	0.31
Brain metastasis	Yes = 1, No = 0	0.45	0.11-1.84	0.27
LVI	Positive=1, Negative=2	1.38	0.85-2.23	0.19

The univariate analysis of the relationship between clinicopathological factors and metastasis-free interval.				
Variable	Category	HR	95% CI	P value
smoking history	1=Yes, 2=No	1.53	1.12-2.09	0.008
Pathological stage	PTa/1=1, PT2=2, PT3=3, PT4=4			<0.001
PTa/1VS PT2		1.47	0.71-3.01	0.3
PTa/1 vs. PT3		2.03	1.03-3.98	0.04
PTa/1 vs. PT4		4.06	2.04-8.06	<0.001
PT2 vs. PT3		0.73	0.46-1.14	0.16
PT2 vs. PT4		0.36	0.23-0.58	<0.001
PT3 vs. PT4		0.5	0.35-0.72	<0.001
Grade	G1/G2=1, G3=2	0.5	0.25-0.98	0.04
Adenocarcinoma	Yes = 1, No = 0	0.71	0.48-1.05	0.08
Anterior wall	Yes = 1, No = 0	0.64	0.42-0.97	0.04
Margin status	Positive = 1, Negative = 2	2.05	0.35-3.13	0.001
age at diagnosis	<54 = 1, ≥54 = 2	0.66	0.42-1.02	0.06
Dissection of lymph node	Yes = 1, No = 0	1.41	0.98-2.03	0.06
Gender	Male = 1, Female = 2	1.17	0.76-1.79	0.48
Adjuvant therapy	Yes = 1, No = 2	1.72	0.95-3.12	0.08
Tumor size	1: ≤3 cm, 2: ≥3 cm	0.99	0.71-1.39	0.96
Growth mode	Single = 1, Multifocal = 2	1.28	0.90-1.82	0.18
Carcinoma in situ	Yes = 1, No = 2	0.6	0.22-1.62	0.31
Urothelial carcinoma	Yes = 1, No = 0	1.2	0.44-3.26	0.72

Squamous cell carcinoma	Yes = 1, No = 0	1.08	0.69–1.68	0.74
Sarcomatoid carcinoma	Yes = 1, No = 0	0.82	0.30–2.22	0.7
Lateral wall	Yes = 1, No = 0	1.12	0.81–1.54	0.5
Posterior wall	Yes = 1, No = 0	1.05	0.72–1.52	0.82
Triangular area	Yes = 1, No = 0	1.02	0.74–1.39	0.92
Top wall	Yes = 1, No = 0	1.27	0.76–2.10	0.36
Bladder neck	Yes = 1, No = 0	1.38	0.82–2.32	0.23
Surgical approach	Open = 1, minimal invasive = 2	1.5	0.88–2.53	0.13
LVI	Positive = 1, Negative = 2	1.27	0.90–1.79	0.18

The yellow highlighted section represented the factors which were further used for multivariable Cox regression. LNM, lymph node metastasis; LVI, lymphovascular invasion.