

Present vs. absent	1.027 (0.731- 1.443)	0.877			1.011 (0.713- 1.433)	0.950			0.955 (0.683- 1.365)	0.845		
Hematuria												
Present vs. absent	0.894 (0.603- 1.324)	0.575			0.867 (0.581- 1.295)	0.487			0.830 (0.556- 1.240)	0.363		
Pathological T stage												
T2 vs. Tis/a/1	2.163 (1.234- 3.790)	0.007	1.788 (1.011- 3.163)	0.046	3.411 (1.773- 6.563)	<0.001	2.775 (1.430- 5.388)	0.003	2.076 (1.124- 3.830)	0.019	1.716 (0.922- 3.195)	0.089
T3/4 vs. Tis/a/1	7.600 (4.900- 11.787)	<0.001	5.576 (3.480- 8.937)	<0.001	12.267 (7.091- 21.220)	<0.001	8.992 (5.059- 15.984)	<0.001	9.159 (5.735- 14.625)	<0.001	5.834 (3.541- 9.611)	<0.001
LN stage												
N+ vs. Nx/0	4.855 (3.287- 7.169)	<0.001	2.010 (1.272- 3.175)	0.003	5.142 (3.474- 7.611)	<0.001	2.106 (1.328- 3.340)	0.002	6.303 (4.220- 9.414)	<0.001	1.921 (1.204- 3.065)	0.006
Tumor grade												
High vs. low	3.563 (1.139- 11.144)	0.029	1.414 (0.436- 4.582)	0.564	3.341 (1.068- 10.454)	0.038	2.973 (0.399- 22.137)	0.287	2.257 (1.065- 4.781)	0.034	2.150 (0.292- 15.809)	0.452
LVI												
Yes vs. no	3.696 (2.800- 4.878)	<0.001	1.791 (1.289- 2.488)	0.001	3.791 (2.846 - 5.049)	<0.001	1.698 (1.210- 2.383)	0.013	4.413 (3.305- 5.893)	<0.001	1.910 (1.357- 2.689)	<0.001
Tumor size, cm												
>2 vs. ≤2	2.224 (1.538- 3.215)	<0.001	1.089 (0.737- 1.609)	0.669	2.305 (1.569- 3.388)	<0.001	1.088 (0.725- 1.634)	0.683	2.578 (1.736- 3.830)	<0.001	1.255 (0.826- 1.906)	0.287
Tumor necrosis												
Yes vs. no	2.085 (1.537- 2.829)	<0.001	1.001 (0.722- 1.389)	0.996	2.103 (1.537- 2.878)	<0.001	0.988 (0.707- 1.380)	0.941	2.065 (1.505- 2.832)	<0.001	0.988 (0.705- 1.385)	0.943
Adjuvant chemotherapy												

Yes vs. no	4.855 (3.287- 7.169)	<0.001	0.578 (0.371- 0.899)	0.015	2.039 (1.387- 2.997)	<0.001	0.576 (0.369- 0.899)	0.015	3.303 (2.327- 4.689)	<0.001	0.916 (0.605- 1.386)	0.677
WBC												
High vs. low	1.439 (1.089- 1.902)	0.011	0.853 (0.558- 1.304)	0.463	1.404 (1.054- 1.871)	0.021	0.820 (0.529- 1.270)	0.374	1.529 (1.144- 2.043)	0.004	0.948 (0.612- 1.466)	0.809
ANC												
High vs. low	1.730 (1.304- 2.293)	<0.001	1.300 (0.827- 2.044)	0.256	1.736 (1.297- 2.322)	<0.001	1.274 (0.799- 2.032)	0.309	1.822 (1.360- 2.443)	<0.001	1.267 (0.811- 1.980)	0.298
SIRI												
High vs. low	2.830 (1.966- 4.074)	<0.001	1.838 (1.328- 2.545)	<0.001	2.614 (1.782- 3.833)	<0.001	1.952 (1.393- 2.735)	<0.001	1.849 (1.356- 2.522)	<0.001	1.507 (1.079- 2.106)	0.016
Multifocality												
Yes vs. No	2.391 (1.722- 3.319)	<0.001	1.768 (1.306- 2.394)	<0.001	2.241 (1.576- 3.187)	<0.001	1.691 (1.236- 2.314)	<0.001	1.819 (1.335- 2.479)	<0.001	1.437 (1.042- 1.981)	0.027

RNU, radical nephroureterectomy; Pre-eGFR, preoperative estimated glomerular filtration rate; DM, diabetes mellitus; HTN, hypertension; BC, bladder cancer; WBC, white blood cell count; ANC, absolute neutrophil count; SIRI, systemic inflammation response index; LN, lymph node; LVI, lymphovascular invasion; T, tumor; HR, hazard ratio; CI, confidence interval.