

Table S1 Clinical and pathological characteristics of the patients diagnosed with clinical T2 or lower UTUC (renal pelvic cancer or ureteral cancer)

Variables	Non-upstaged			Upstaged		
	Renal pelvis (n=132)	Ureter (n=125)	P value	Renal pelvis (n=61)	Ureter (n=56)	P value
Preoperative factors			0.33			0.18
Age (years)	73 [65–78]	73 [69–78]		73 [67–79]	76 [70–80]	
Sex			0.5			0.76
Male	91 (68.9)	91 (72.8)		42 (68.9)	40 (71.4)	
Female	41 (31.1)	34 (27.2)		19 (31.2)	16 (28.6)	
Charlson comorbidity index			0.93			0.84
0	110 (83.3)	106 (84.8)		47 (77.1)	41 (73.2)	
1	18 (13.6)	16 (12.8)		11 (18.0)	11 (19.6)	
2	4 (3.0)	3 (2.4)		3 (4.9)	4 (7.1)	
Laterality			0.77			0.081
Right	71 (53.8)	65 (52.0)		36 (59.0)	24 (42.9)	
Left	61 (46.2)	60 (48.0)		25 (41.0)	32 (57.1)	
Hydronephrosis			<0.001			<0.001
Absent	95 (72.0)	43 (34.4)		45 (73.8)	9 (16.1)	
Present	37 (28.0)	82 (65.6)		16 (26.2)	47 (83.9)	
Voided urine cytology			0.89			0.93
Negative	95 (72.0)	89 (71.2)		31 (50.8)	28 (50.0)	
Positive	37 (28.0)	36 (28.8)		30 (49.2)	28 (50.0)	
Tumor multifocality			0.87			0.13
Negative	116 (87.9)	109 (87.2)		55 (90.2)	45 (80.4)	
Positive	16 (12.1)	16 (12.8)		6 (9.8)	11 (19.6)	
Tumor length (mm)	28 [20–36]	20 [12–32]	<0.001	34 [27–45]	20 [15–35]	0.0019
Period from image to surgery (days)	42 [31–63]	47 [30–68]	0.33	46 [28–62]	40 [29–67]	0.75
Postoperative factors						
Tumor grade			0.72			0.17
Low grade	44 (33.3)	39 (31.2)		2 (3.3)	0	
High grade	88 (66.7)	86 (68.8)		59 (96.7)	56 (100.0)	
Histology			0.96			0.033
Pure UC	130 (98.5)	123 (98.4)		59 (96.7)	48 (85.7)	
UC with variant histology	2 (1.5)	2 (1.6)		2 (3.3)	8 (14.3)	
Tumor length (mm)	33 [20–43]	25 [15–35]	<0.001	46 [35–55]	30 [20–48]	0.0012
Lymph node status			0.96			0.3
pN0	37 (28.0)	33 (26.4)		13 (21.3)	19 (33.9)	
pN1–2	2 (1.5)	2 (1.6)		8 (13.1)	7 (12.5)	
pNx	93 (70.5)	90 (72.0)		40 (65.6)	30 (53.6)	
Concomitant CIS			0.017			0.84
Absent	121 (91.7)	102 (81.6)		52 (85.3)	47 (83.9)	
Present	11 (8.3)	23 (18.4)		9 (14.8)	9 (16.1)	
LVI			0.015			0.041
Absent	122 (92.4)	103 (82.4)		31 (50.8)	18 (32.1)	
Present	10 (7.6)	22 (17.6)		30 (49.2)	38 (67.9)	
Follow-up (months)	23 [10–45]	29 [13–53]	0.17	22 [12–51]	16 [9–28]	0.067

Data are presented as median [IQR] or n (%). UTUC, upper tract urothelial carcinoma; UC, urothelial carcinoma; CIS, carcinoma in situ; LVI, lymphovascular invasion; IQR, interquartile range.