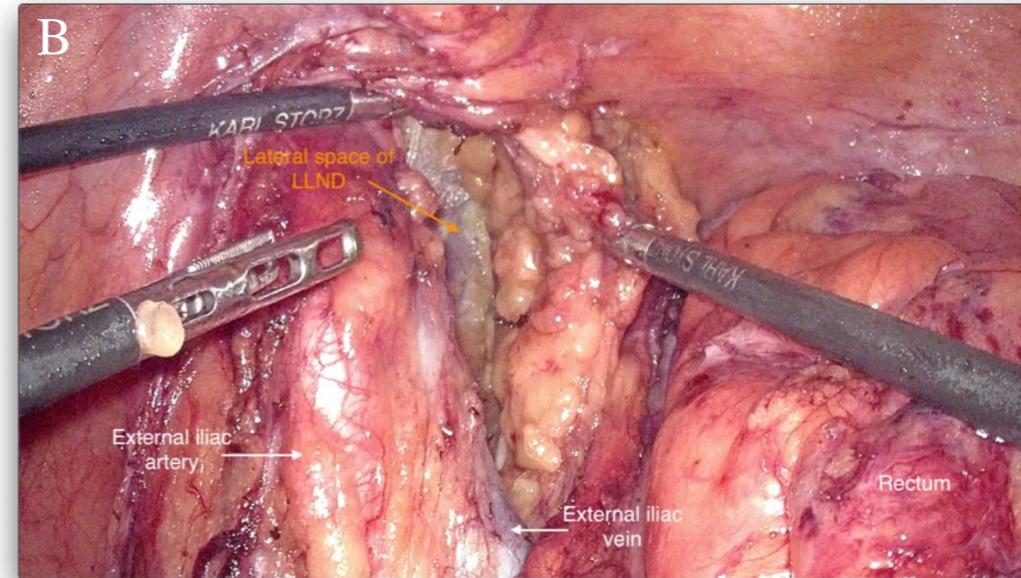
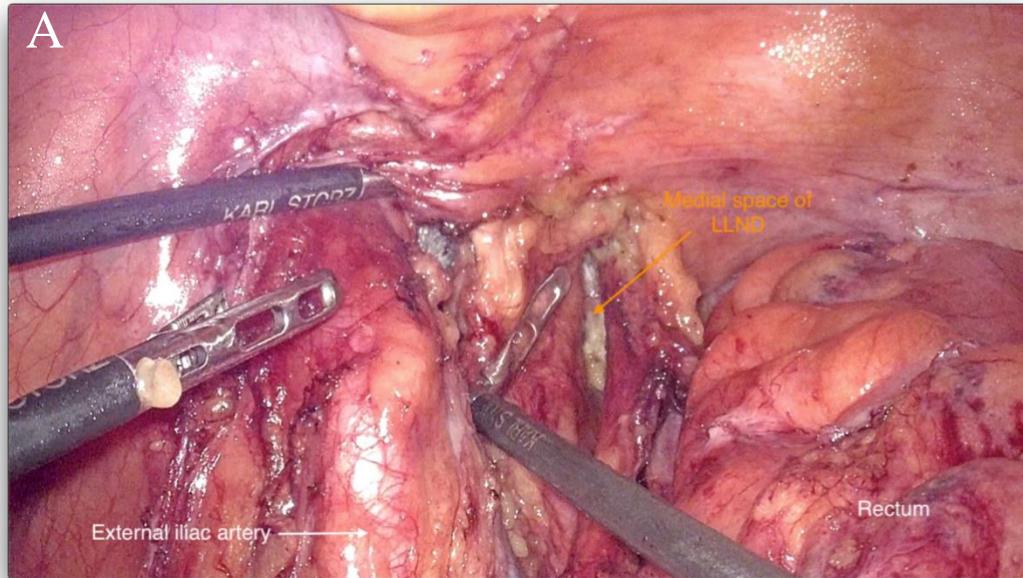
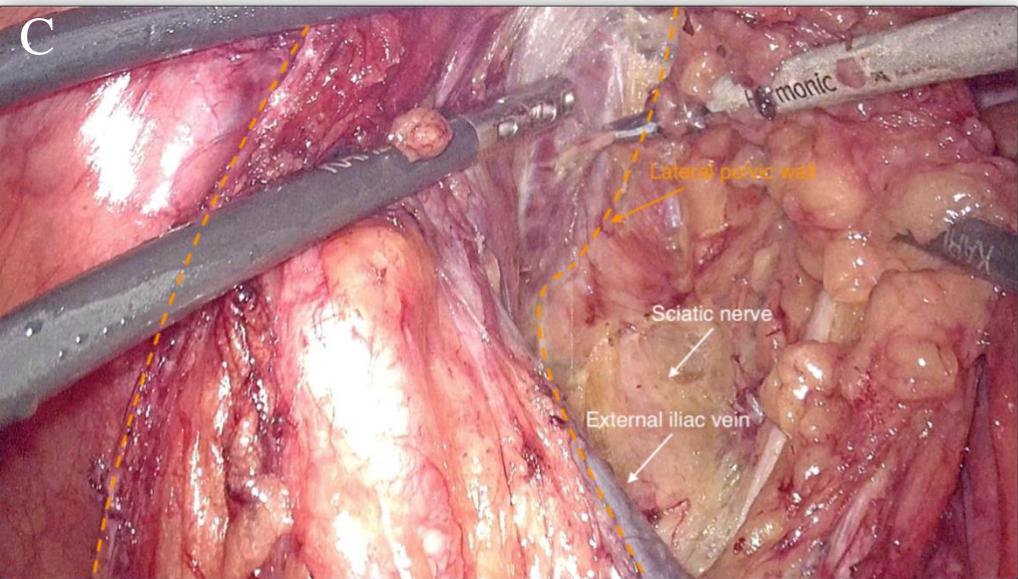
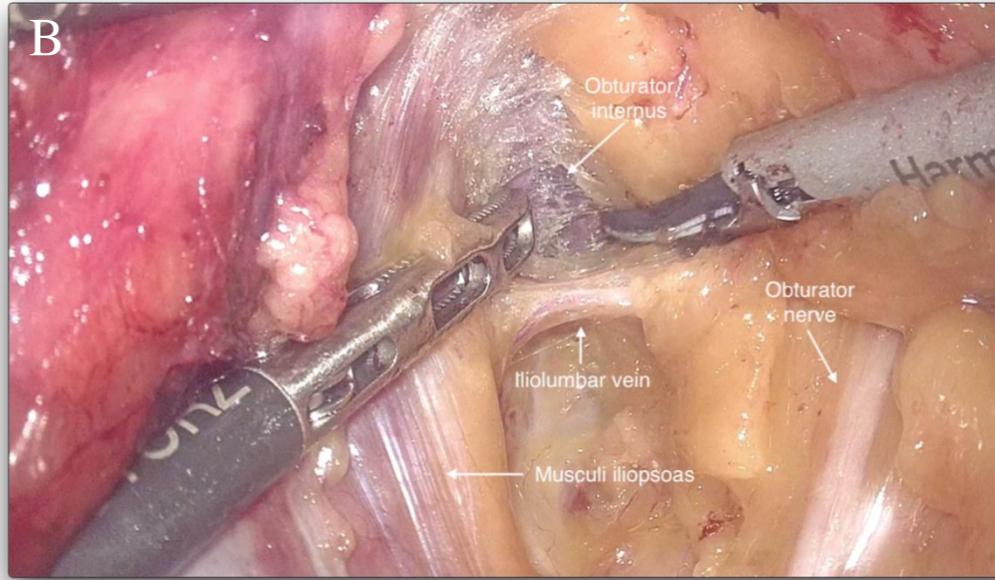
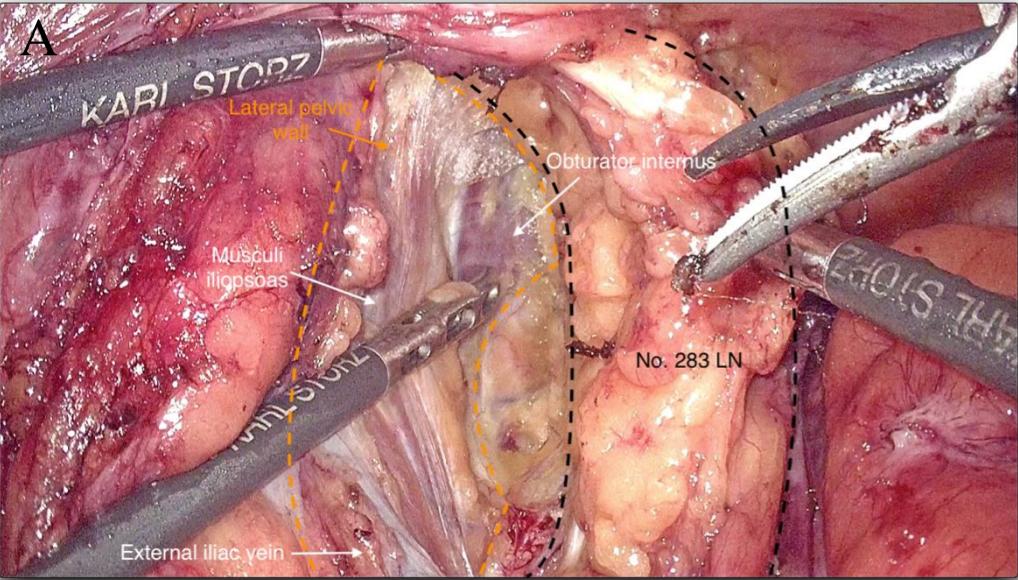


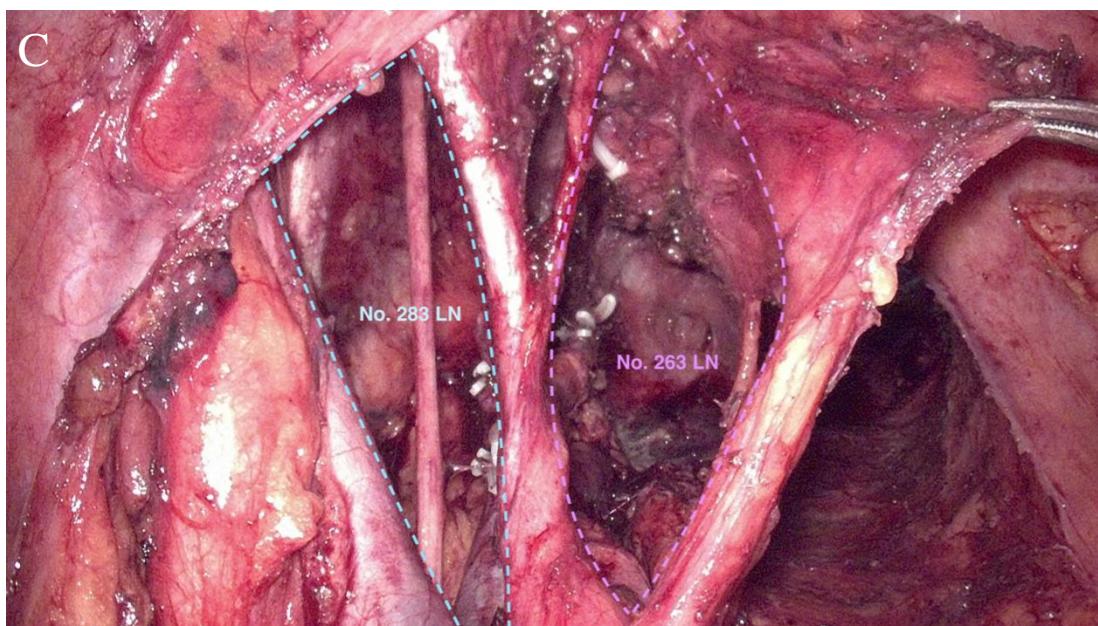
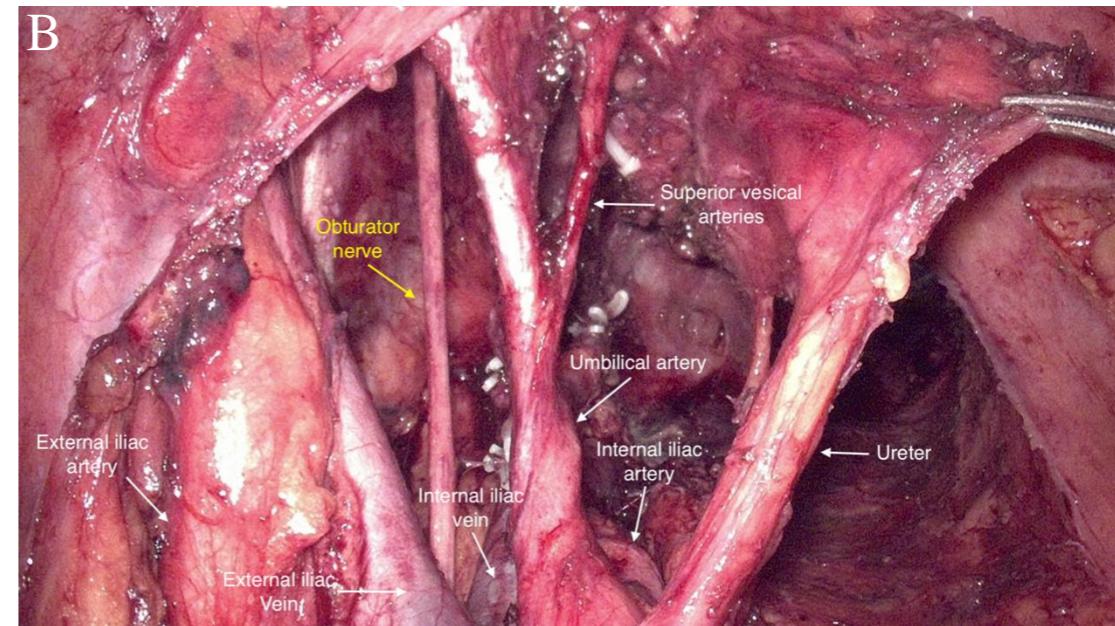
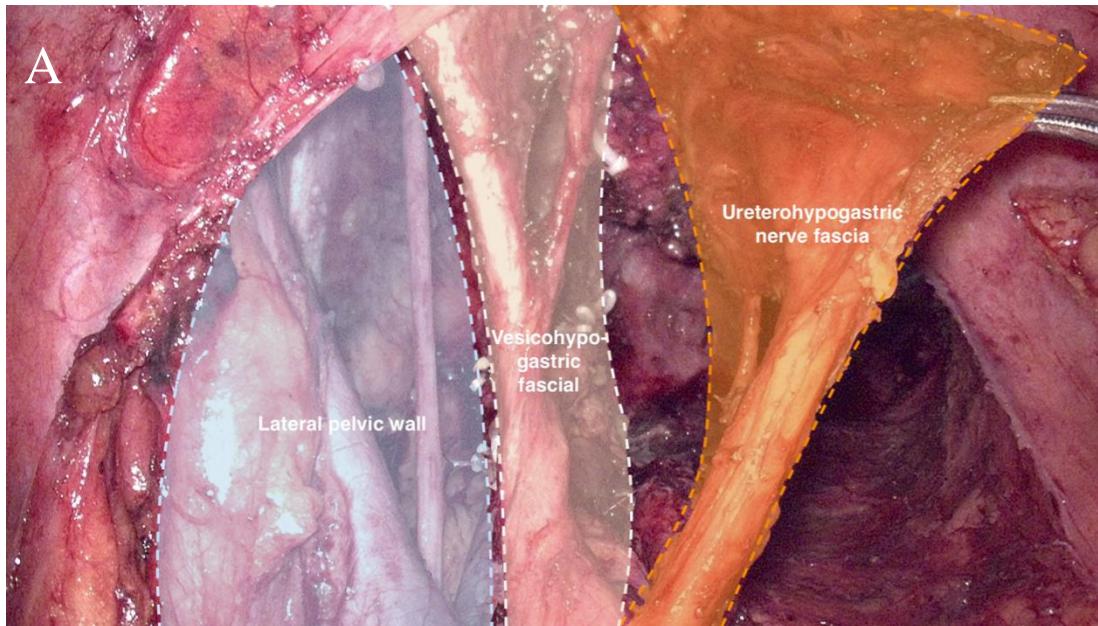
**Supplementary Figure 1 a-b: Separation is performed lateral to the ureterohypogastric nerve fascia to establish the medial boundary of No. 263 lymph node dissection.**



**Supplementary Figure 2 a: Medial space of the No. 263 lymph node dissection; b: Lateral space of No. 283 lymph node dissection.** LLND: Lateral lymph node dissection.



**Supplementary Figure 3 a-c: Separation is performed along the inner side of the lateral pelvic wall to establish the lateral boundary of No. 283 lymph node dissection. LN, lymph node. LLND: Lateral lymph node dissection.**



**Supplementary Figure 4 a-c: Locations of the medial, middle, and lateral fascia for lateral lymph node dissection, lateral lymph node groups, and important blood vessels and nerves. LN: Lymph node.**

**Supplementary Table 1 Univariable and multivariable analyses of urinary dysfunction of the entire cohort (*n* = 105)**

	Univariable		Multivariable	
	% of urinary dysfunction	P-val	OR (95% CI)	P-val
	ue	ue	ue	ue
<b>Surgical method</b>				
Fascia-oriented LLND	9/41 (22.0)		Reference	
Vessel-oriented LLND	29/64 (45.3)	0.015	2.897 (1.163- 7.213)	0.022
<b>Blood loss</b>				
< 300 mL	33/98 (33.7)		Reference	
≥ 300 mL	5/7 (71.4)	0.096	3.810 (0.654- 22.207)	0.137
<b>LLND</b>				
Unilateral dissection	29/76 (38.2)		Reference	
Bilateral dissection	9/29 (31.0)	0.497	0.651 (0.251- 1.687)	0.377

OR: Odds ratio; CI: Confidence interval; LLND: Lateral lymph node dissection.

**Supplementary Table 2 Baseline characteristics of the male patients (*n* = 56)**

Variables	Fascia-oriented	Vessel-oriented	<i>P</i> -value
	group ( <i>n</i> = 21)	group ( <i>n</i> = 35)	
Age (yr), median (IQR)	62.0 (54.0, 65.0)	59.0 (49.0, 66.0)	0.859
BMI (kg/m <sup>2</sup> ), median (IQR)	24.9 (21.5, 27.8)	24.2 (21.3, 27.8)	0.393
Distance to tumour from AV (cm), median (IQR)	4.2 (3.0, 6.0)	4.0 (3.0, 5.0)	0.392
Pathological type, <i>n</i> (%)			0.794
Adenocarcinoma	20 (95.2)	35 (100.0)	
Non-adenocarcinoma	1 (4.8)	0 (0)	
Preoperative radiotherapy, <i>n</i> (%)			0.141
Yes	7 (33.3)	10 (28.6)	
No	14 (66.7)	25 (71.4)	
Preoperative chemotherapy, <i>n</i> (%)			0.888
Yes	8 (38.1)	14 (40.0)	
No	13 (61.9)	21 (60.0)	
Surgical procedure, <i>n</i> (%)			0.168
Laparoscopic surgery	21 (100.0)	32 (91.4)	
Conversion to open surgery	0 (0)	3 (8.6)	
Surgical approach, <i>n</i> (%)			0.529
Dixon	11 (52.4)	14 (40.0)	
Miles	10 (47.6)	20 (57.1)	
Parks	0 (0.0)	1 (2.9)	
LLND, <i>n</i> (%)			0.015
Unilateral dissection	18 (85.7)	23 (65.7)	

Bilateral dissection	3 (14.3)	12 (34.3)	
Pathological tumor stage <sup>a</sup> , <i>n</i> (%)			1.000
0-I	2 (9.5)	3 (8.6)	
II	4 (19.0)	6 (17.1)	
III	15 (71.5)	26 (74.3)	
Adjuvant therapy, <i>n</i> (%)			0.430
Yes	17 (81.0)	31 (88.6)	
No	4 (19.0)	4 (11.4)	

<sup>a</sup>The eighth edition of the American Joint Committee on Cancer TNM staging system.

IQR: Interquartile range; BMI: Body mass index; AV: Anal verge; LLND: Lateral lymph node dissection.

**Supplementary Table 3 Univariable and multivariable analyses of male sexual dysfunction of the male patients (*n* = 56)**

	Univariable		Multivariable	
	% of male sexual	P-val	OR (95% CI)	P-val
	dysfunction			
<b>Surgical method</b>				
Fascia-oriented LLND	9/21 (42.9)		Reference	
Vessel-oriented LLND	26/35 (74.3)	0.019	5.109 (1.078– 24.206)	0.040
<b>Age</b>				
< 56 years	11/19 (57.9)		Reference	
≥ 56 years	24/37 (64.9)	0.610	2.370 (0.487– 11.522)	0.285
<b>LLND</b>				
Unilateral dissection	23/41 (56.1)		Reference	
Bilateral dissection	12/15 (80.0)	0.102	1.773 (0.230– 13.644)	0.582
<b>Preoperative radiotherapy</b>				
No	28/39 (71.8)		Reference	
Yes	7/17 (41.2)	0.030	0.118 (0.024– 0.577)	0.008

OR: Odds ratio; CI: Confidence interval; LLND: Lateral lymph node dissection.

**Supplementary Table 4 Univariable and multivariable analyses of lower limb dysfunction of the entire cohort ( $n = 105$ )**

	Univariable			Multivariable	
	% of limb	lower ue	P-val	OR (95% CI)	P-val
<b>dysfunction</b>					
Surgical method					
Fascia-oriented LLND	10/41 (24.4)			Reference	
Vessel-oriented LLND	19/64 (29.7)	0.554	1.156 (0.461– 2.899)		0.757
Age					
< 65 years	19/76 (25.0)			Reference	
≥ 65 years	10/29 (34.5)	0.331	1.533 (0.596– 3.939)		0.375
LLND					
Unilateral dissection	17/76 (22.4)			Reference	
Bilateral dissection	12/29 (41.4)	0.051	2.364 (0.933– 5.988)		0.070

OR: Odds ratio; CI: Confidence interval; LLND: Lateral lymph node dissection.