



Minimally Invasive Strategies in the Treatment of Recurrent Rectal Cancer

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COLOSOS 2024, Toronto, 10/26-27, 2024



COI Disclosure

Medtronic – Lecture fee (completed)

Johnson and Johnson – Consultation fee (completed)

THE UNIVERSITY OF TEXAS
MD Anderson
Cancer Center

RO is the most important predictor of survival after locally recurrent rectal cancer

Outcomes Following Pelvic Exenteration for Locally Recurrent Rectal Cancer With and Without En Bloc Sacrectomy

Jacob H. Waller, M.B.B.S.^{1,2,3} • Charlotte S. van Kessel, M.D., Ph.D., M.Sc.^{1,2}
 Michael J. Solomon, M.B.B.Ch., D.Med.Sc.^{1,2,3,4} • Peter J. Lee, F.R.A.C.S., M.S.^{1,2,3}
 Kirk K.S. Austin, F.R.A.C.S.^{1,2,3} • Daniel Steffens, Ph.D.^{2,4}

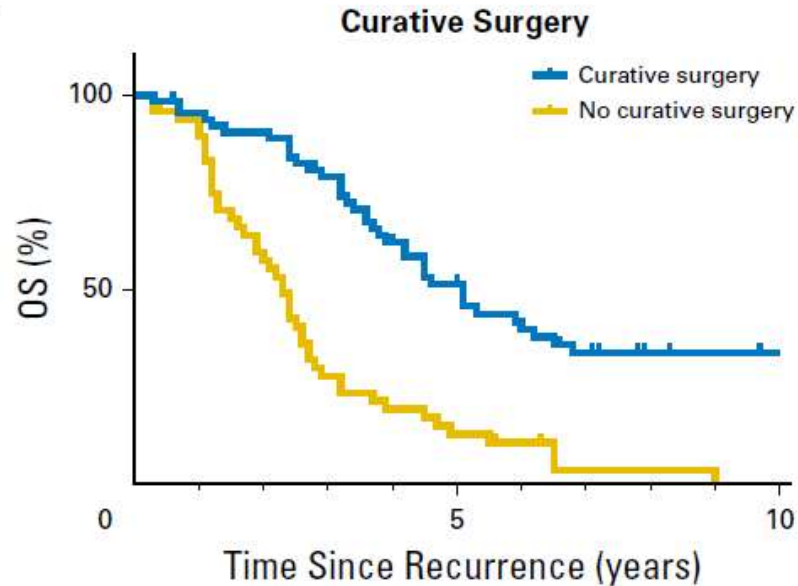
TABLE 3. Univariate and multivariate analyses of overall survival following pelvic exenteration for LRRc (Cox regression analysis)

Factor	Univariate			Multivariate		
	<i>p</i>	<i>HR</i>	<i>95% CI</i>	<i>p</i>	<i>HR</i>	<i>95% CI</i>
Female sex	0.56	0.90	0.64–1.27			
Age	0.004	1.02	1.01–1.04	0.01	1.02	1.01–1.04
RTx	0.034	0.70	0.50–0.97			
CTx	0.003	1.28	1.09–1.52			
Sacrectomy	0.062	1.37	0.99–1.92			
Operation time	0.002	1.07	1.02–1.11	0.04	1.07	1.00–1.14
Length of hospital stay	< 0.001	1.01	1.00–1.01			
Blood loss	0.019	1.00	1.00–1.00			
Blood transfusion	< 0.001	2.40	1.47–3.93			
Vascular involvement ^a	0.73	1.14	0.60–2.06			
Involved margin	0.002	1.72	1.21–2.45	0.007	1.78	1.17–2.70
Return to theater	0.23	1.26	0.86–1.85			
Return to ICU	< 0.001	2.43	1.48–4.0			
Major complication ^b	0.004	1.64	1.18–2.29			

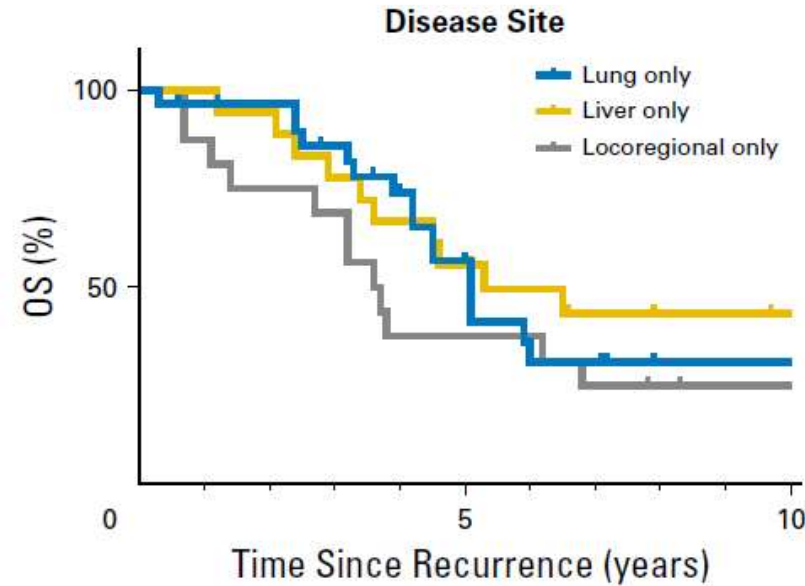
Salvage surgery for isolated locoregional recurrence achieves similar outcomes with isolated liver/lung.

Impact of Recurrence and Salvage Surgery on Survival After Multidisciplinary Treatment of Rectal Cancer

Naruhiko Ikoma, Y. Nancy You, Brian K. Bednarski, Miguel A. Rodriguez-Bigas, Cathy Eng, Prajnan Das, Scott Kopetz, Craig Messick, John M. Skibber, and George J. Chang



Years	1	2	3	4	5	6	7	8	9	10
Curative surgery										
No. at risk	64	60	55	48	36	28	21	16	11	10
No. of events	3	4	5	11	6	5	4	0	0	0
No curative surgery										
No. at risk	49	45	29	12	9	6	4	1	1	1
No. of events	3	16	17	3	3	1	2	0	0	1



Years	1	2	3	4	5	6	7	8	9	10
Lung-only										
No. at risk	30	28	27	22	18	12	7	6	6	6
No. of events	1	0	3	3	4	4	1	0	0	0
Liver-only										
No. at risk	18	18	17	14	12	10	8	6	6	5
No. of events	0	1	3	2	2	1	1	0	0	0
Locoregional-only										
No. at risk	16	14	12	11	6	6	4	3	2	2
No. of events	2	2	1	5	0	2	0	0	0	0

Anatomical division of the pelvis

- Central
- Anterior
- Posterior
- Lateral x2

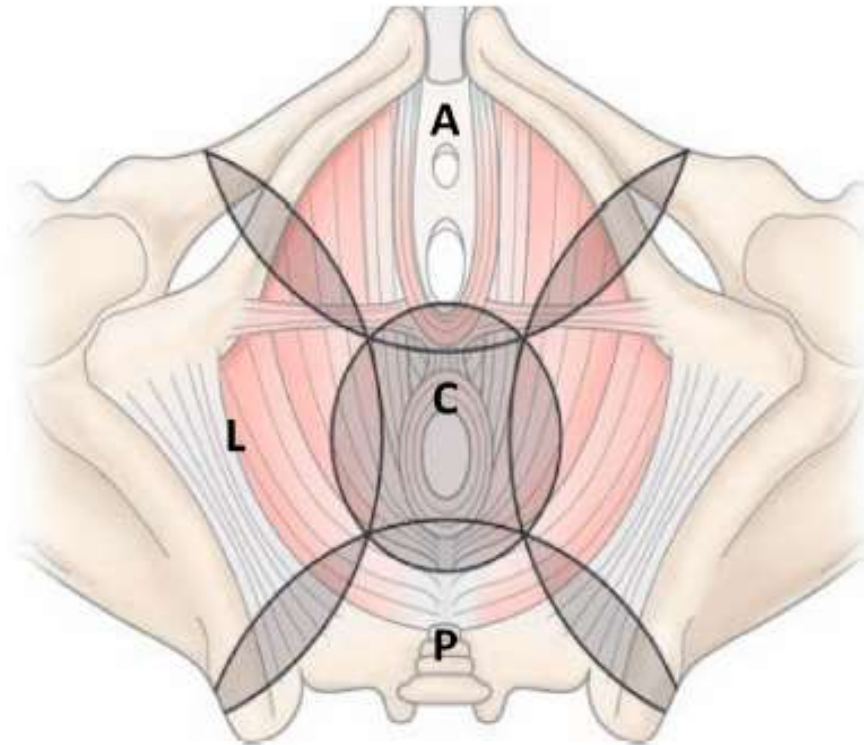


Fig. 1. Schematic diagram of the pelvic divided into its compartments: A – anterior, P – posterior, C – central, L – lateral. A pelvic exenteration is classified as resection of two contiguous compartments.

Pelvic exenteration: Pre-, intra-, and post-operative considerations

Kheng-Seong Ng^{a,b}, Peter J.M. Lee^{a,b,*}

^a Royal Prince Alfred Hospital, Department of Colorectal Surgery, Sydney, Australia
^b Surgical Outcomes Research Centre, Royal Prince Alfred Hospital, Sydney, Australia

Anatomical division of the pelvis

- Central
- Anterior
- Posterior
- Lateral x2
- **Ischiorectal**

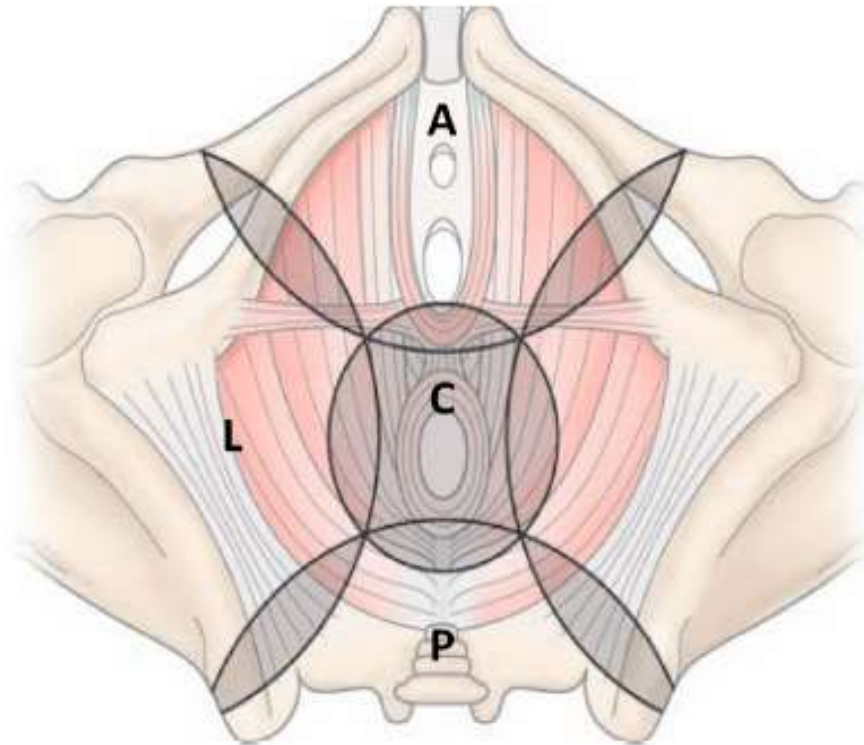
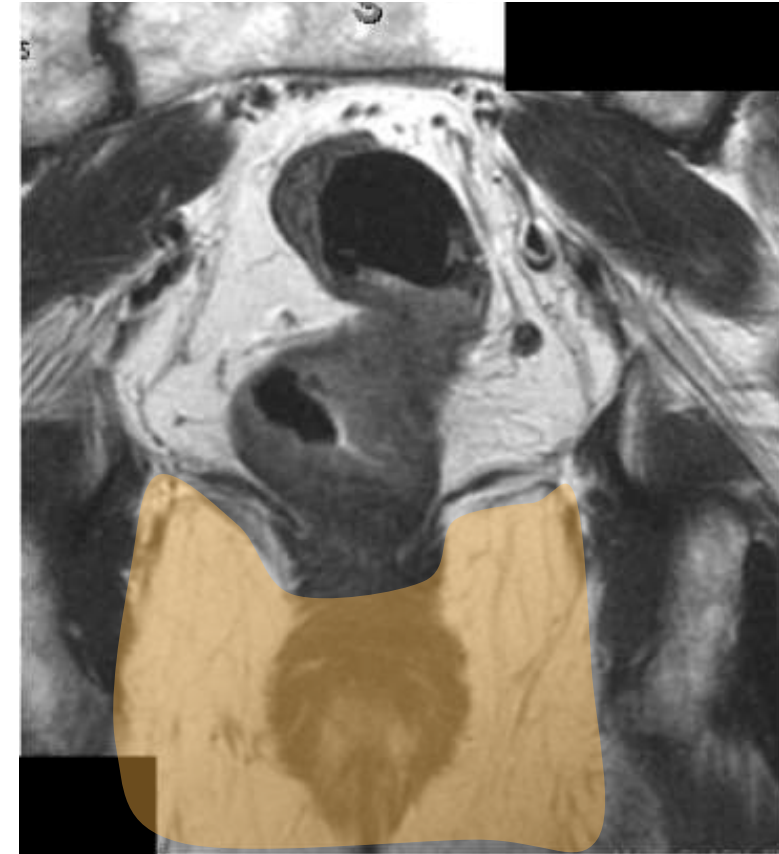


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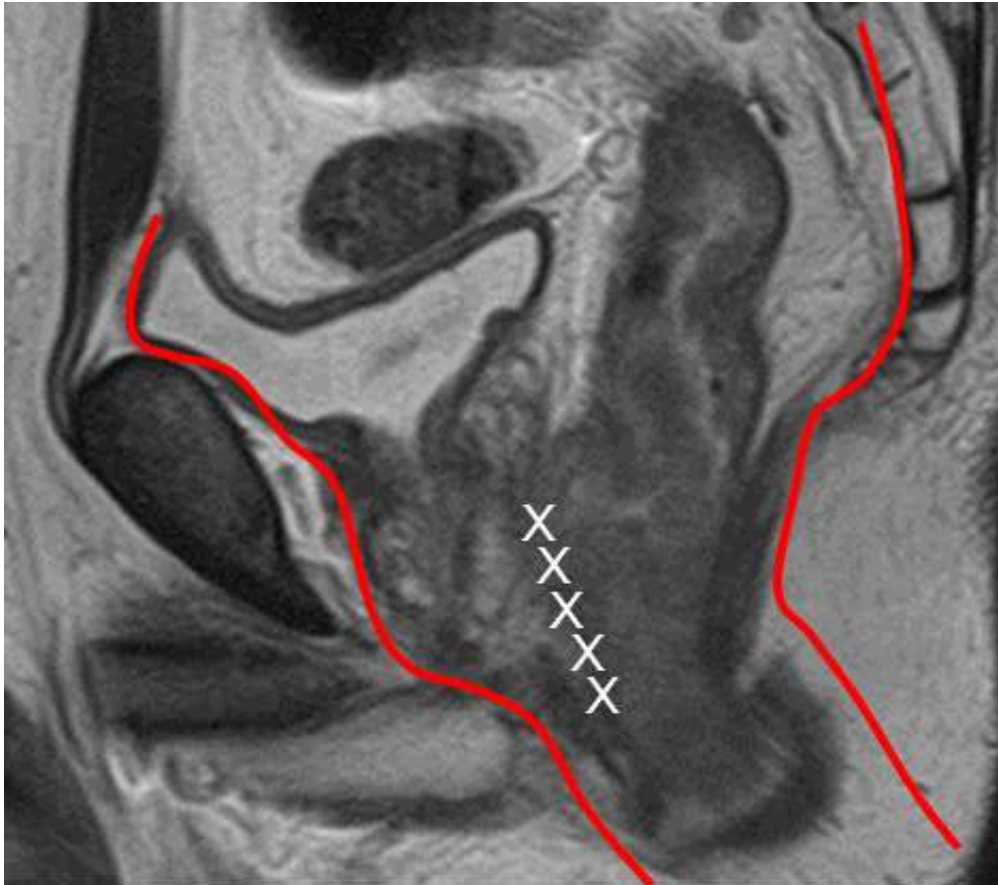
^a Royal Prince Alfred Hospital, Department of Colorectal Surgery, Sydney, Australia
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Anterior Compartment

Anatomical Vital Point... **Anterior ARJ tumor**

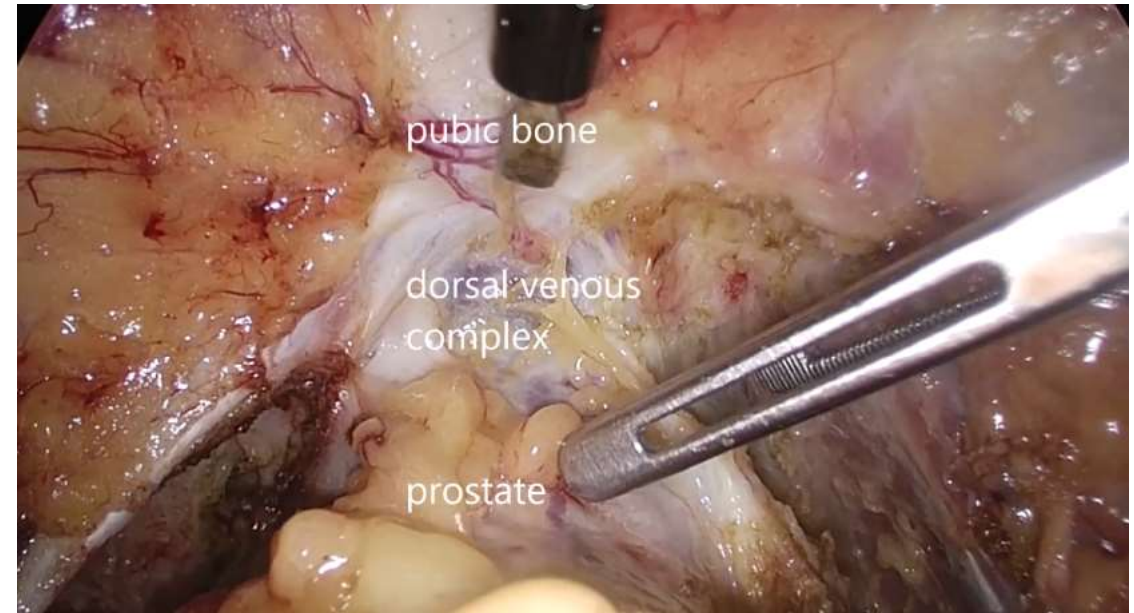
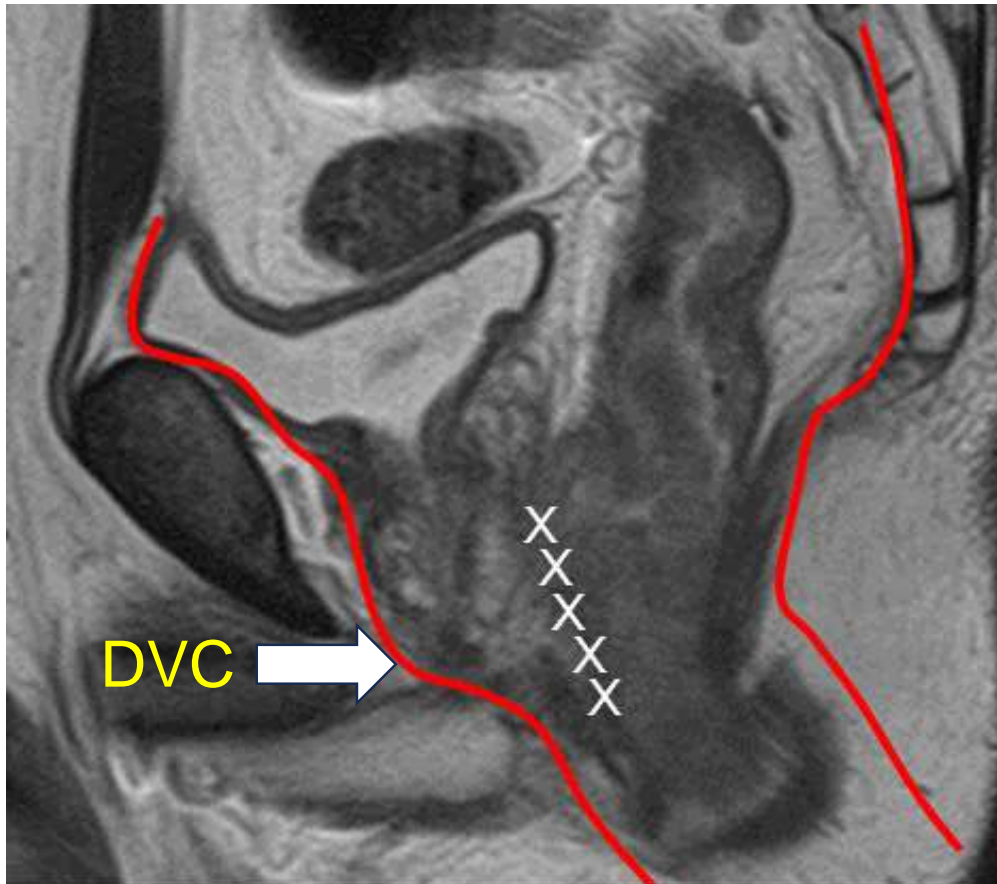
- Anal sphincter
- Urethral sphincter



Anterior Compartment

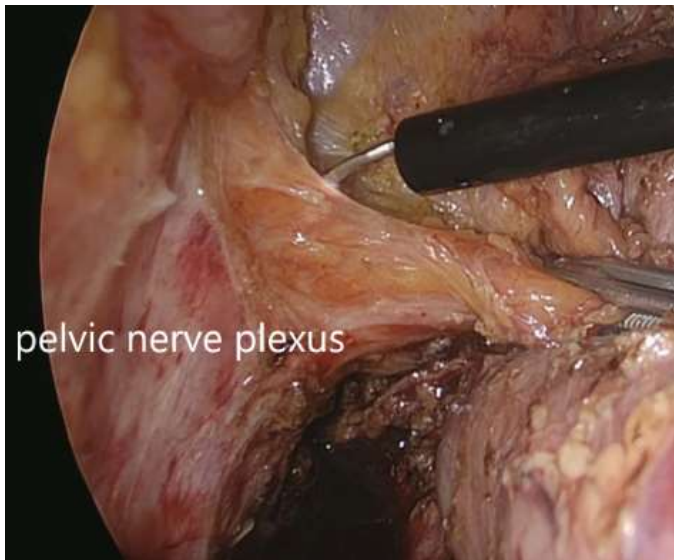
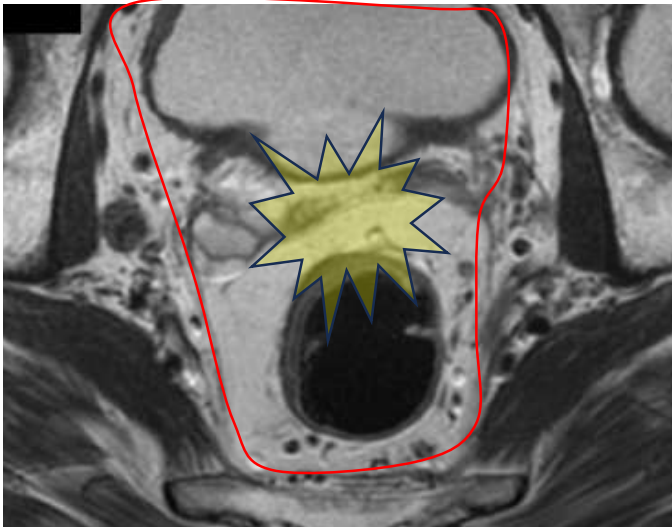
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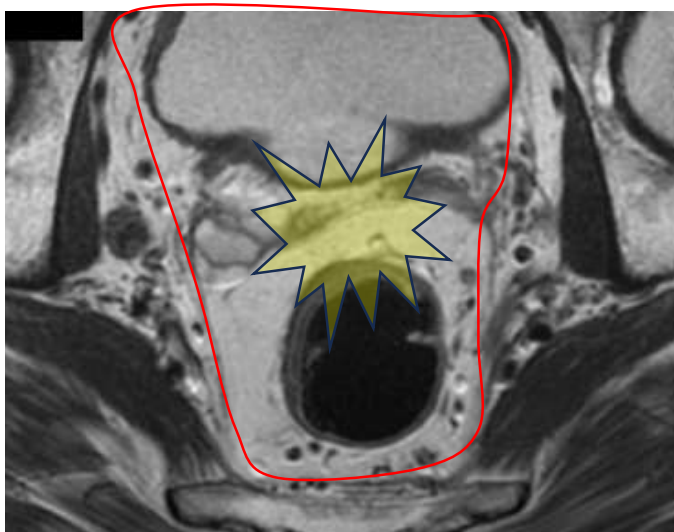
Lateral Compartment... Which planes to use?

TME plane

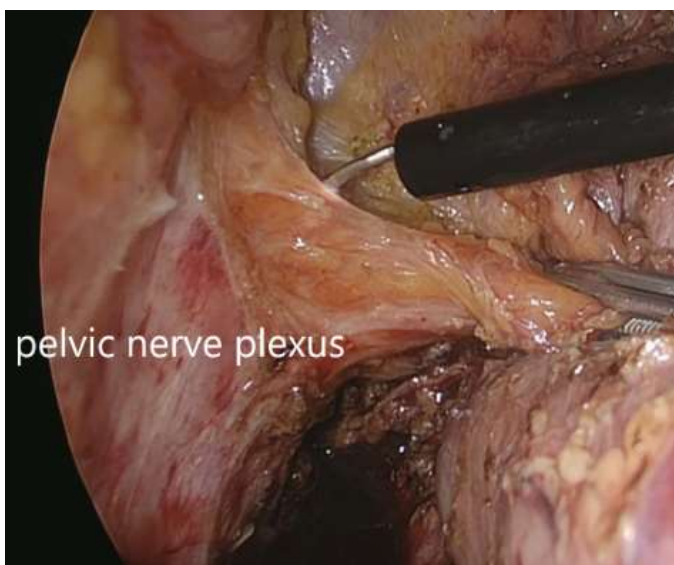
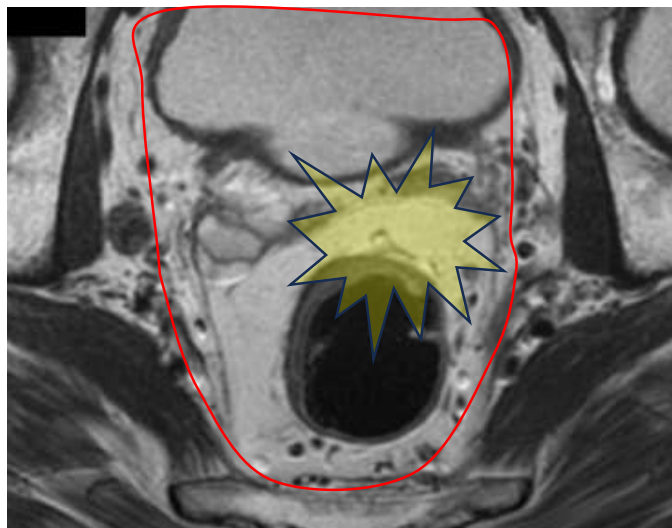


Lateral Compartment... Which planes to use?

TME plane

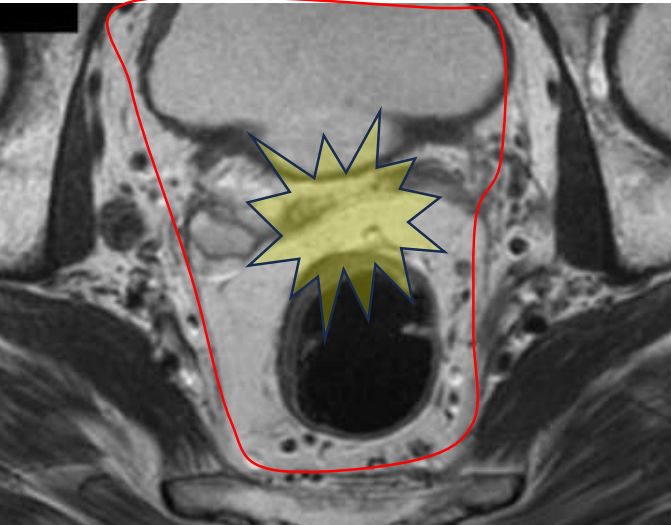


Vascular plane

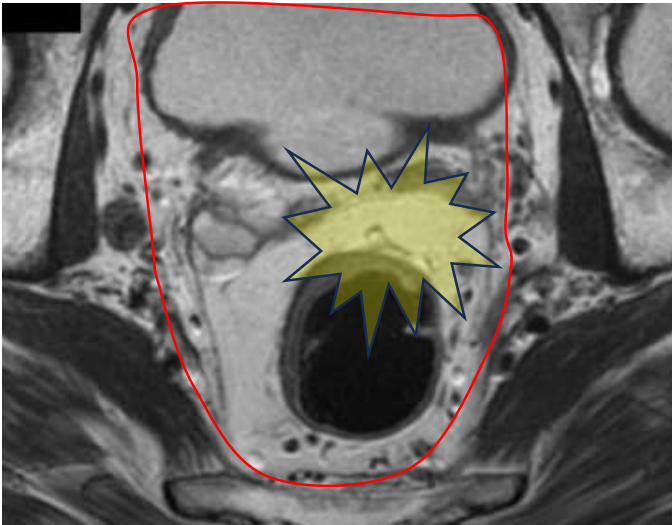


Lateral Compartment... Which planes to use?

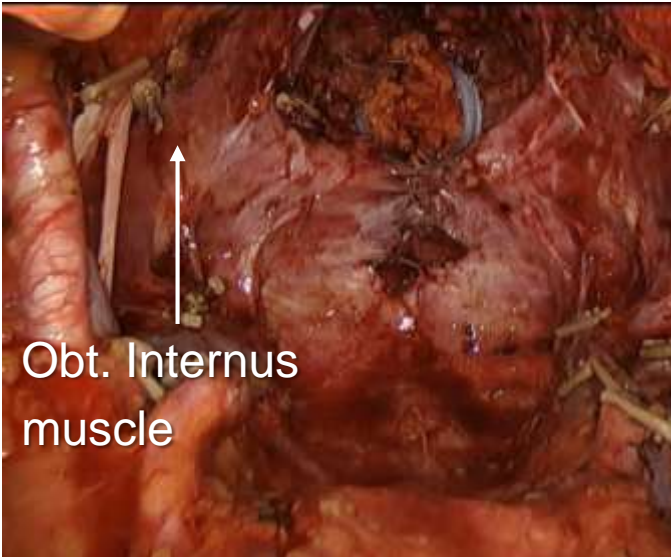
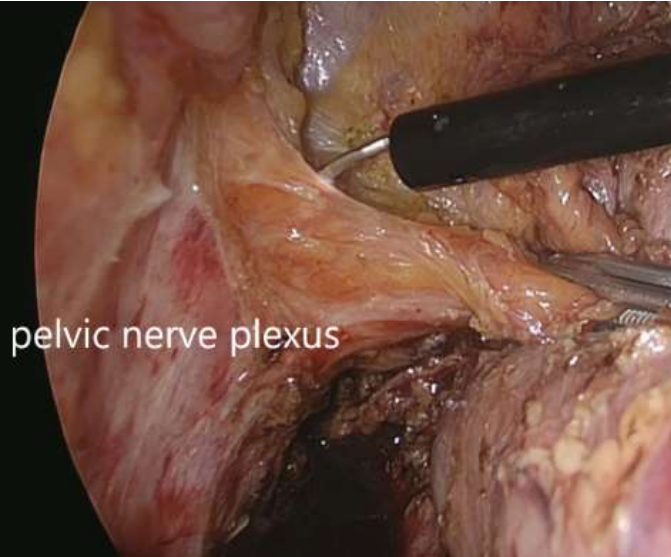
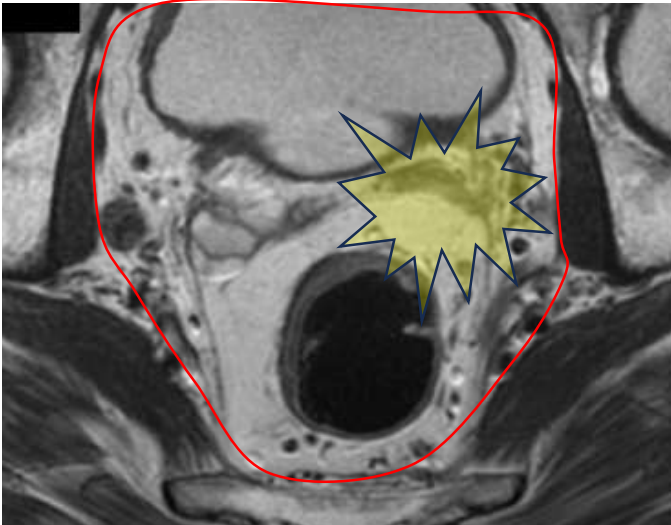
TME plane



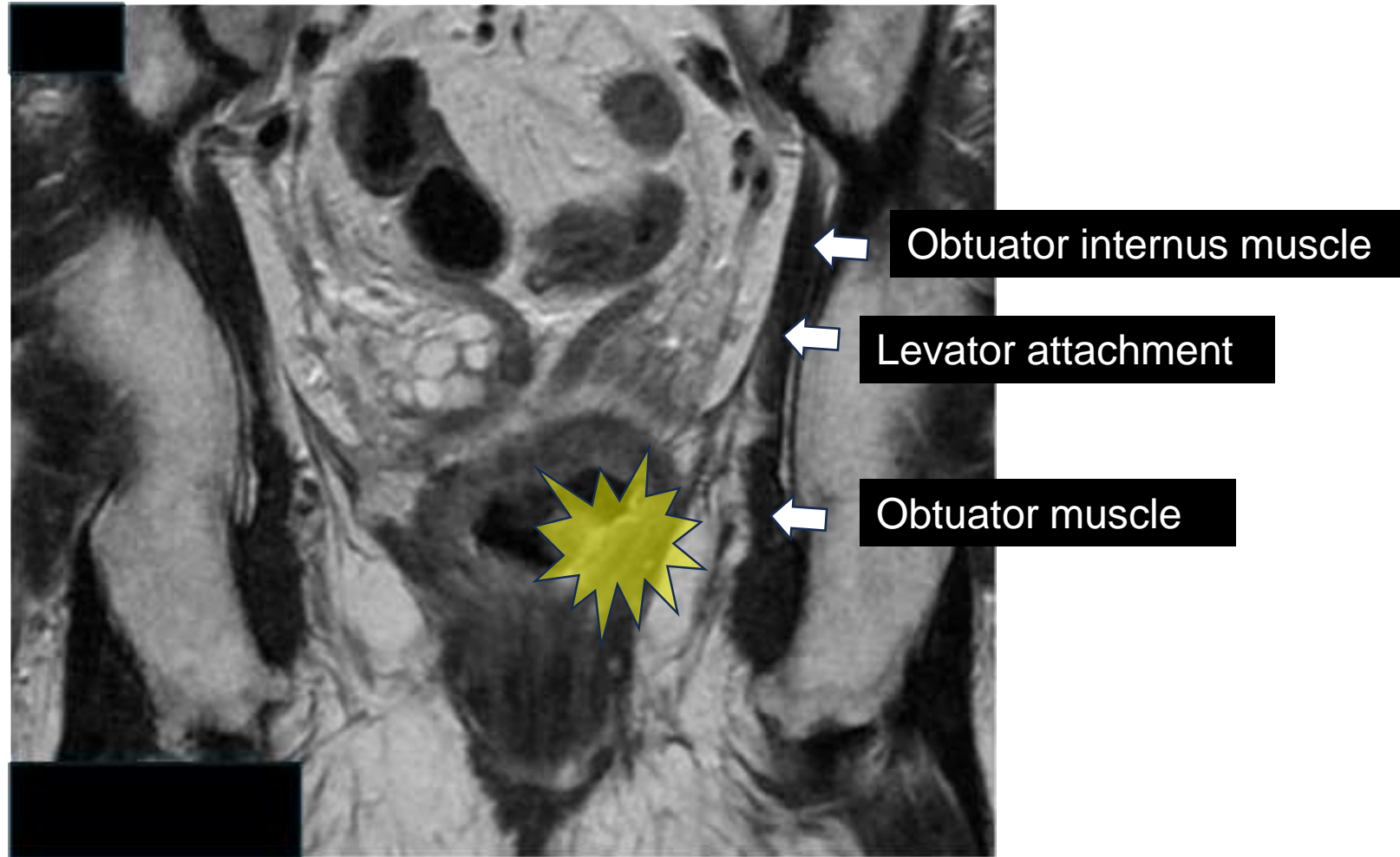
Vascular plane



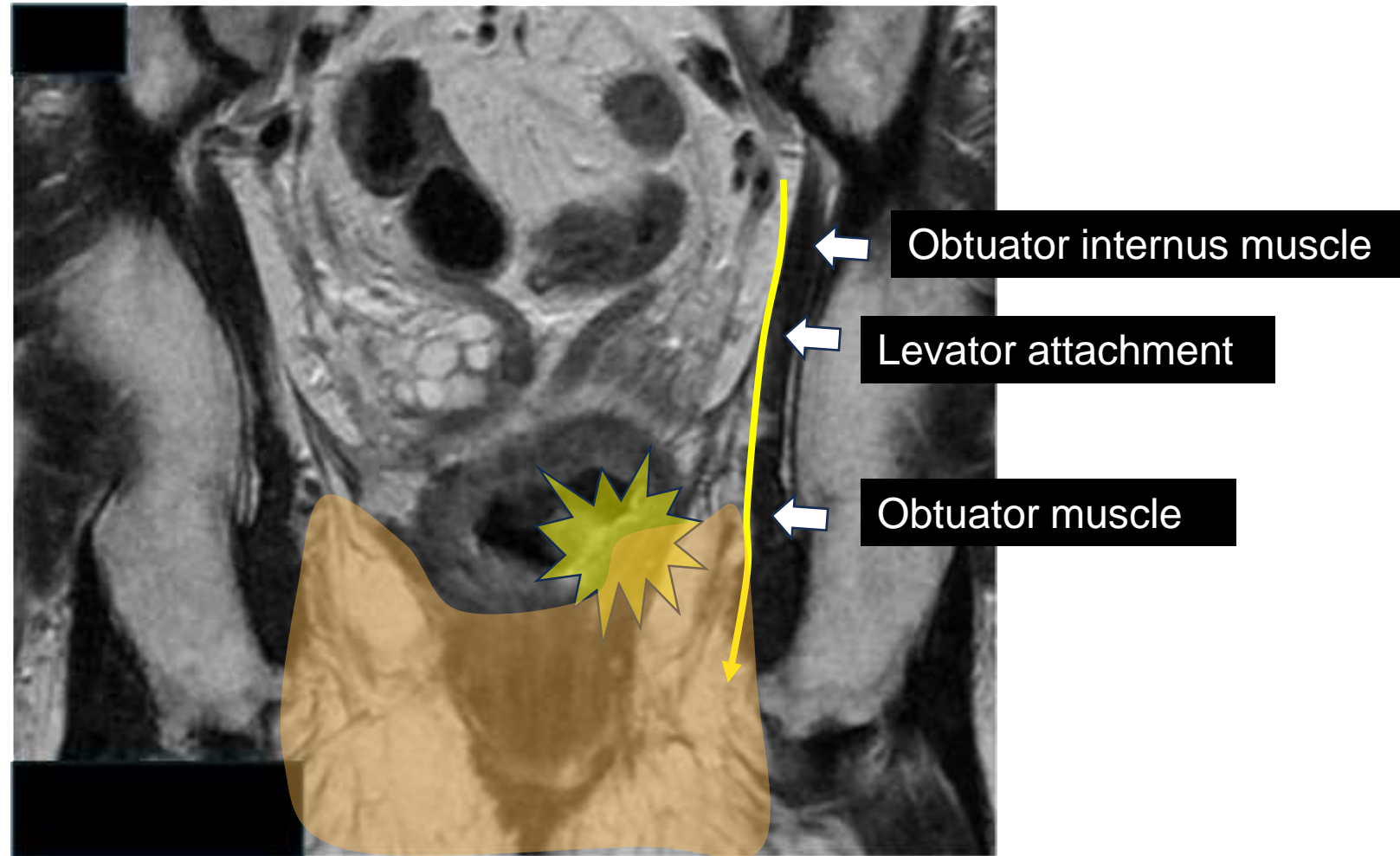
Parietal muscle plane

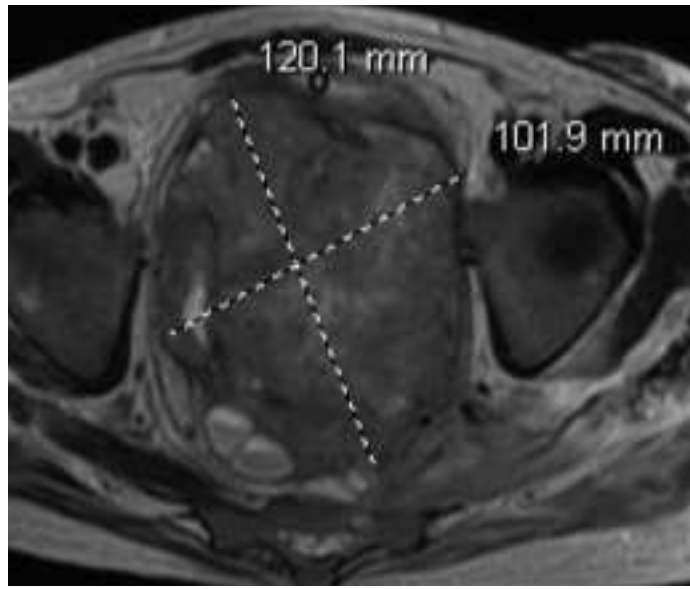


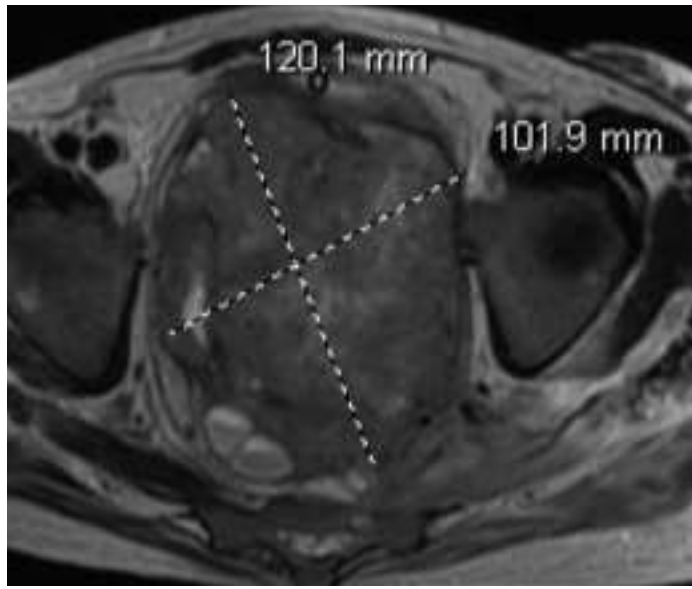
Ischiorectal Compartment



Ischiorectal Compartment

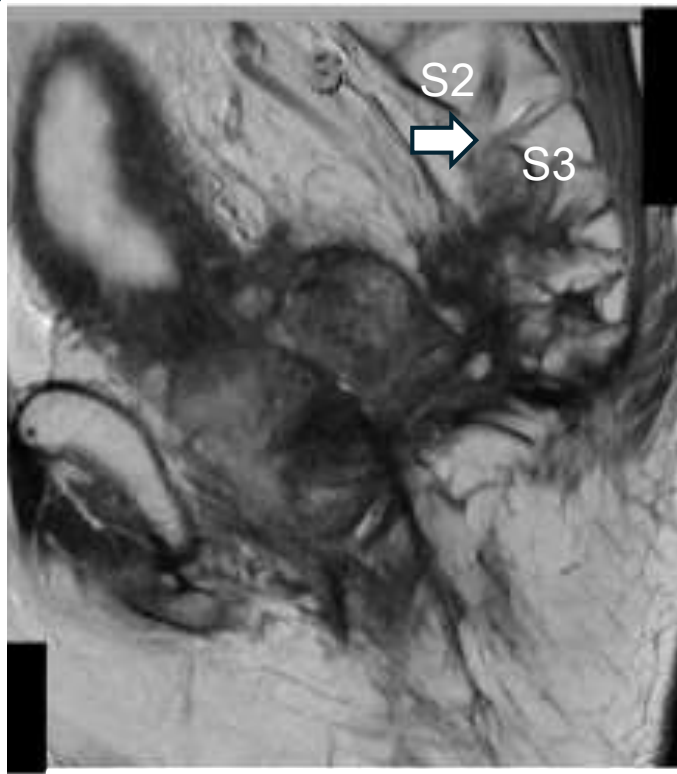
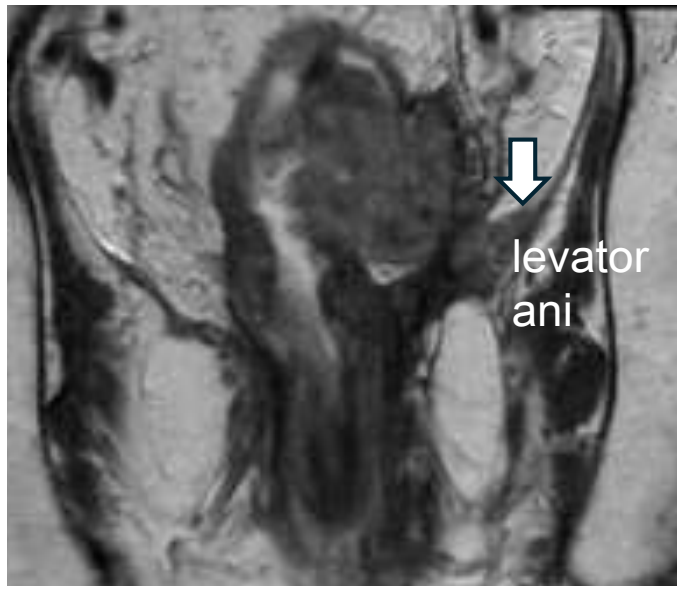
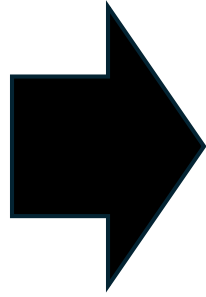


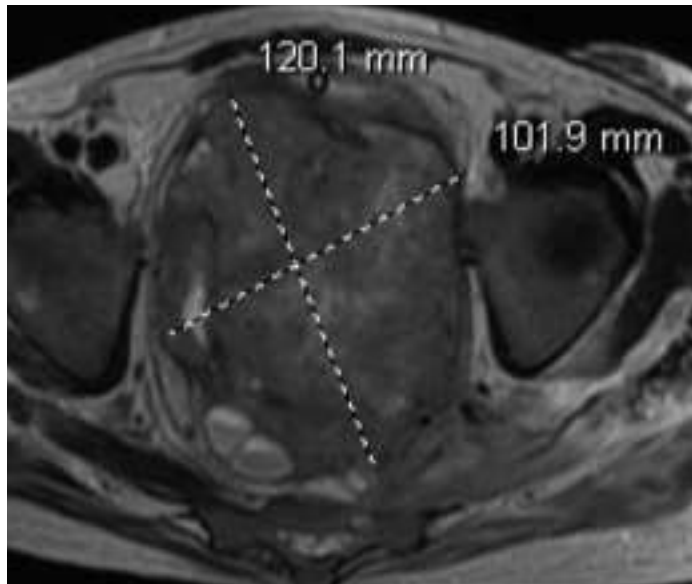




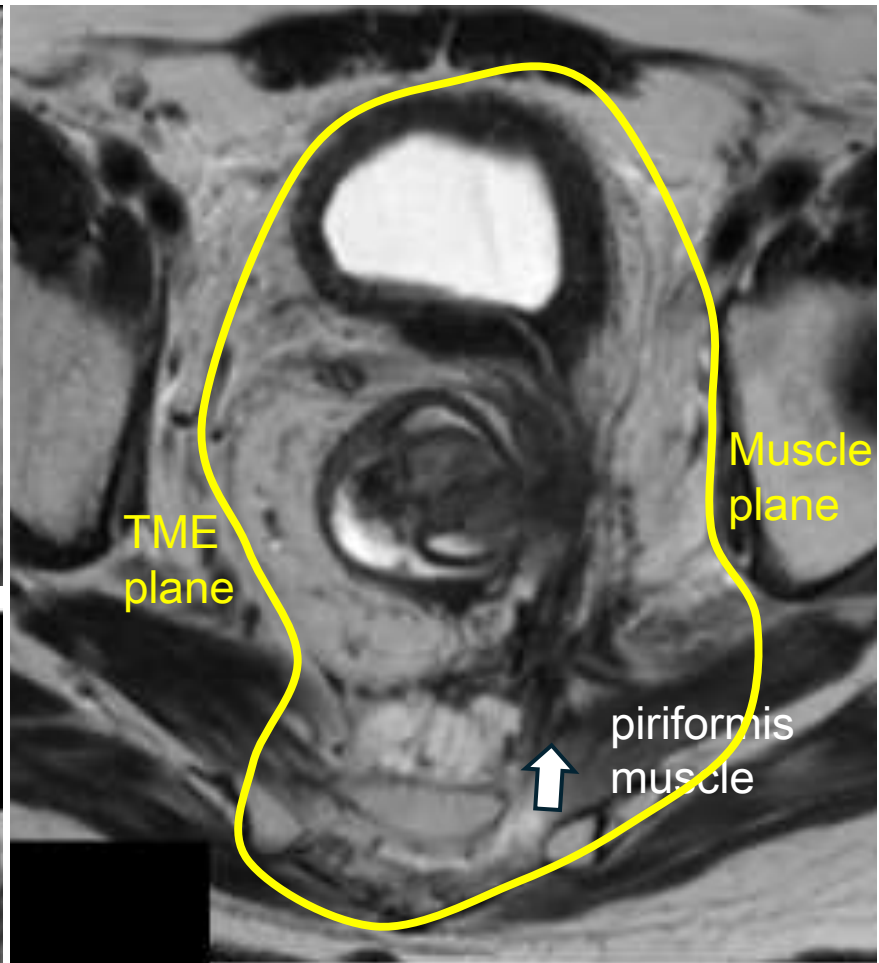
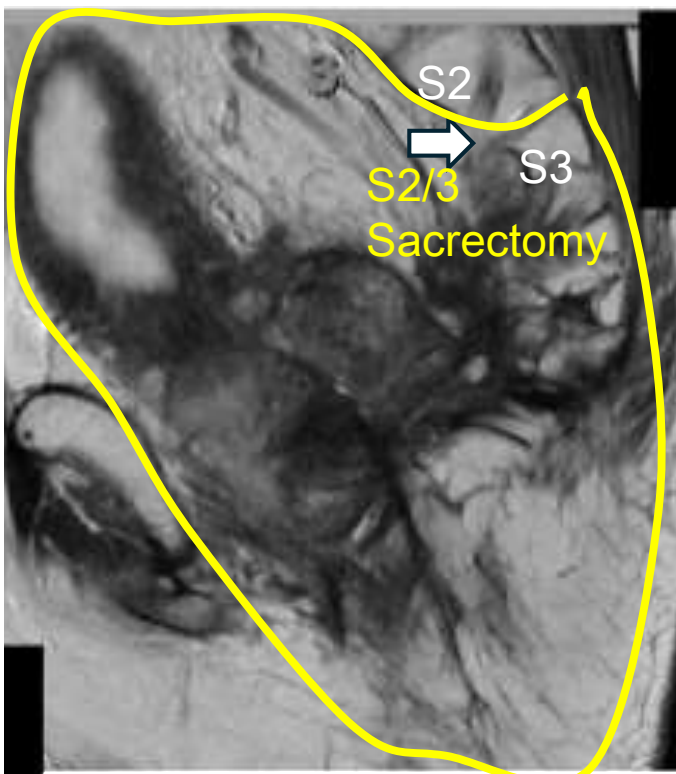
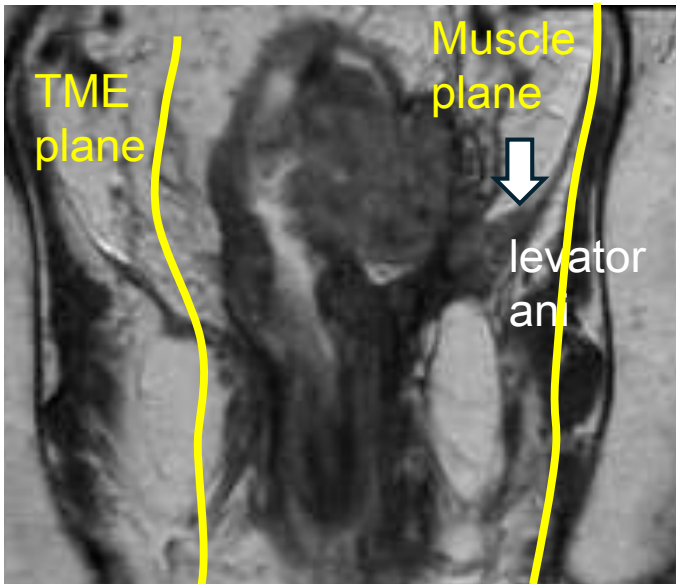
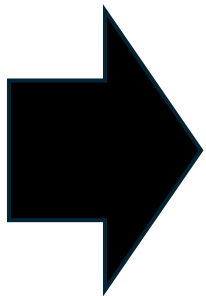
CTx

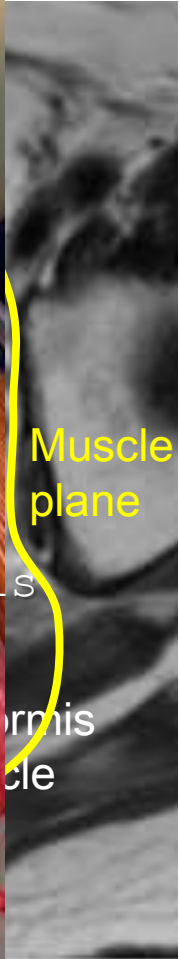
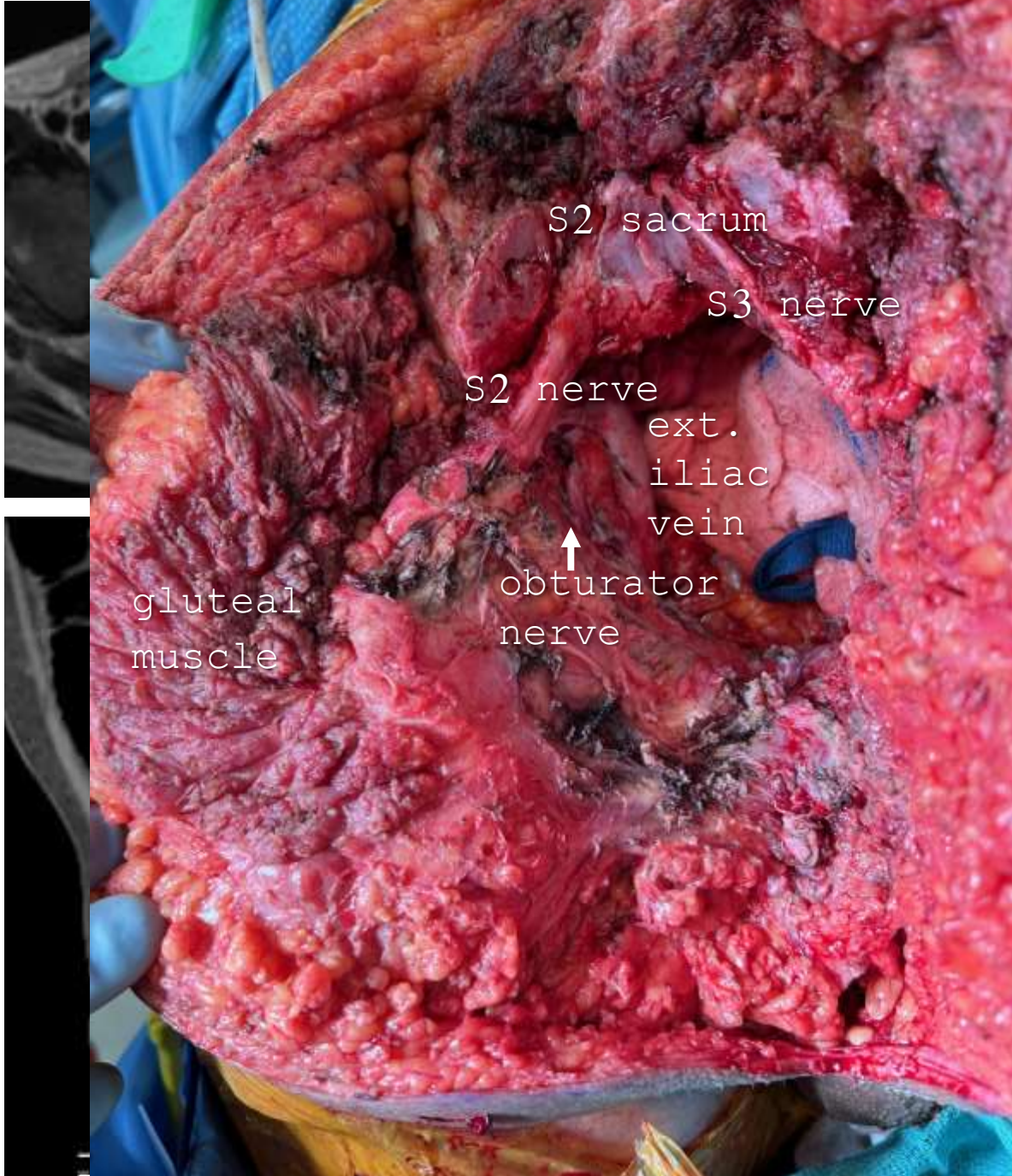
RTx





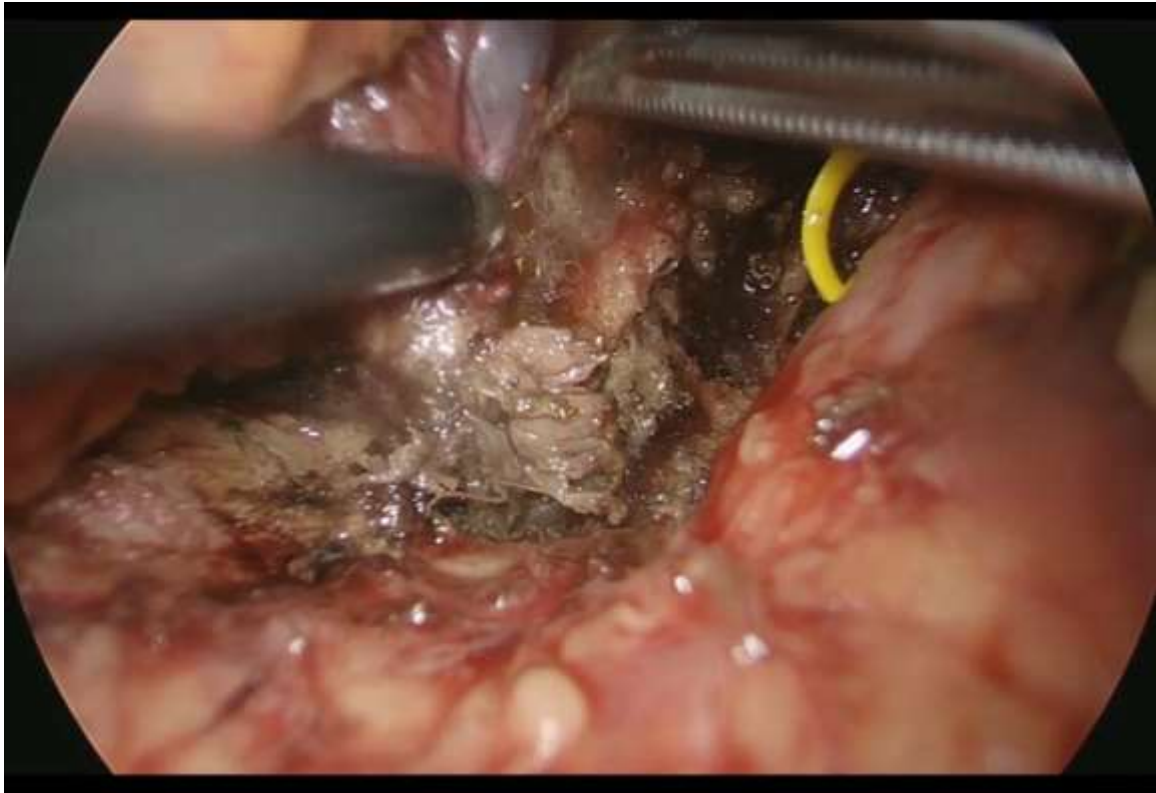
CTx
RTx





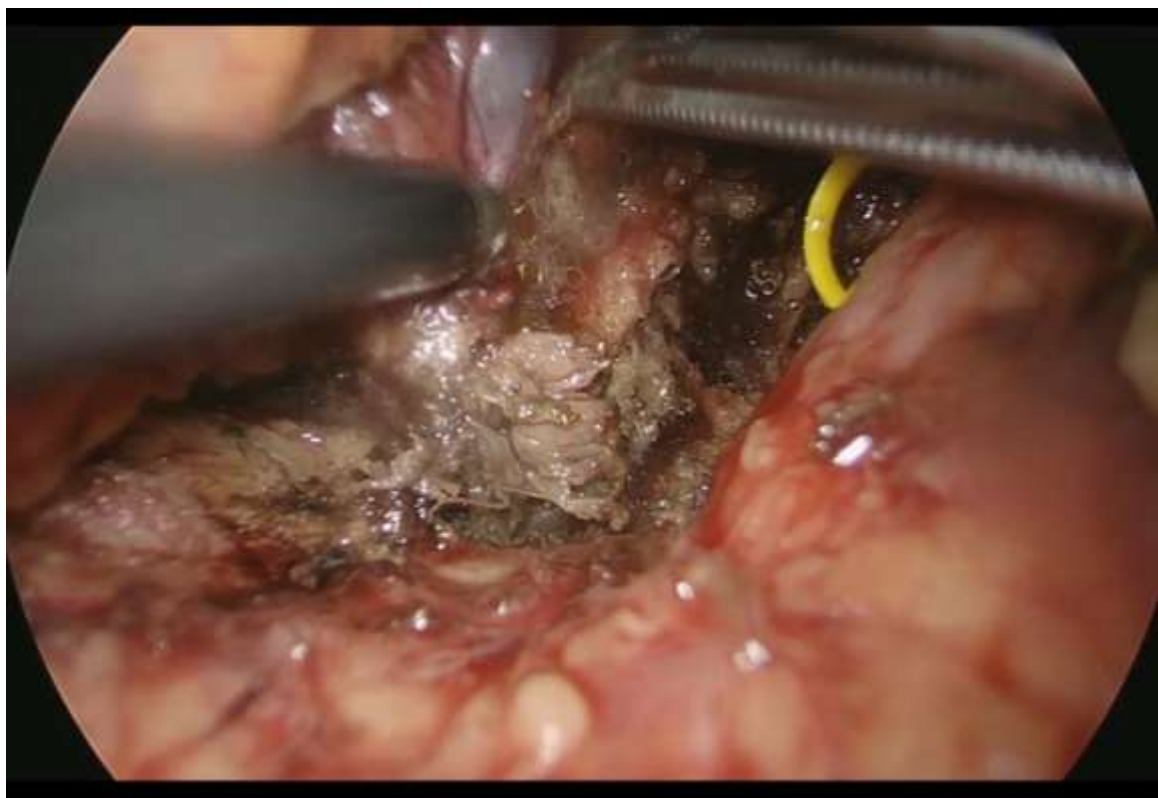
Prepare for **Venous Bleeding!**

- Boiling technique
- Pneumo ↑↑, compression, Trendelenburg



Prepare for Venous Bleeding!

- Boiling technique
- Pneumo ↑↑, compression, Trendelenburg



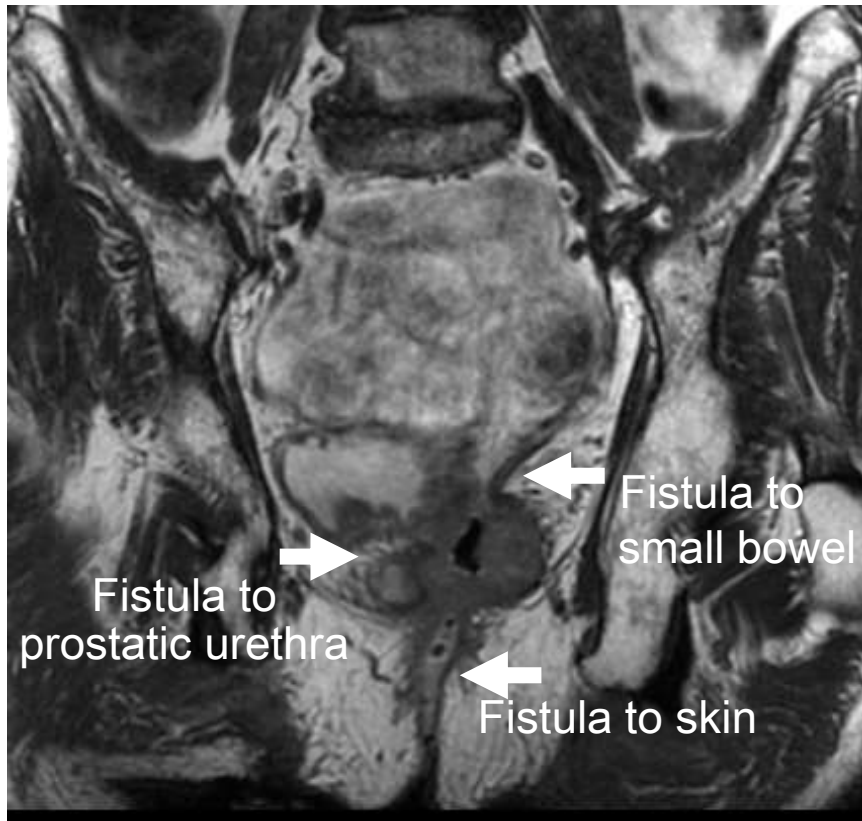
Don't Grill!

Boil!



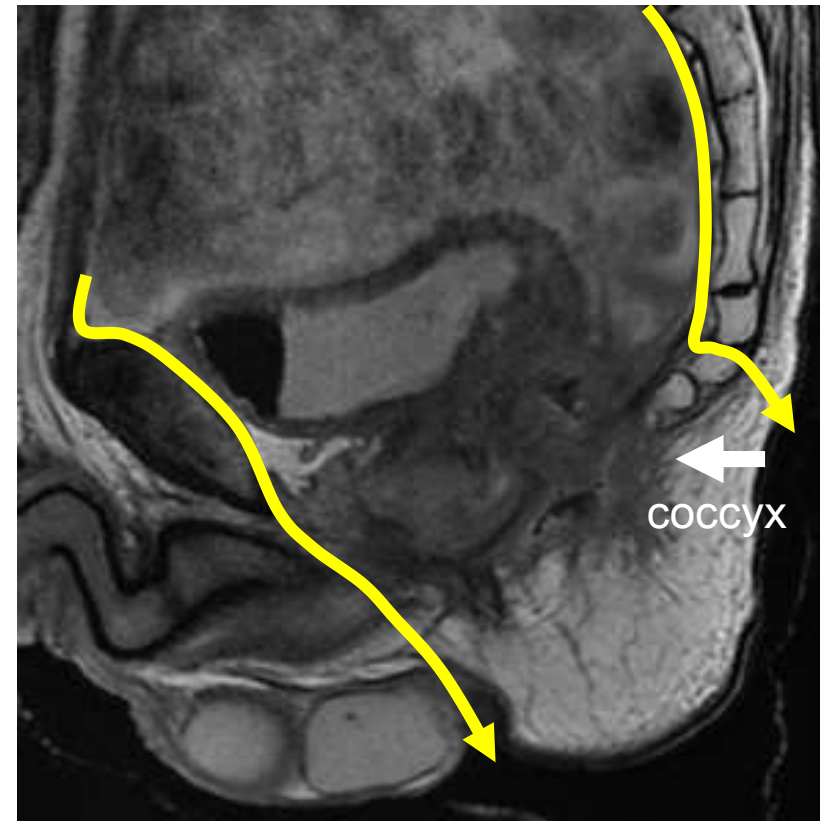
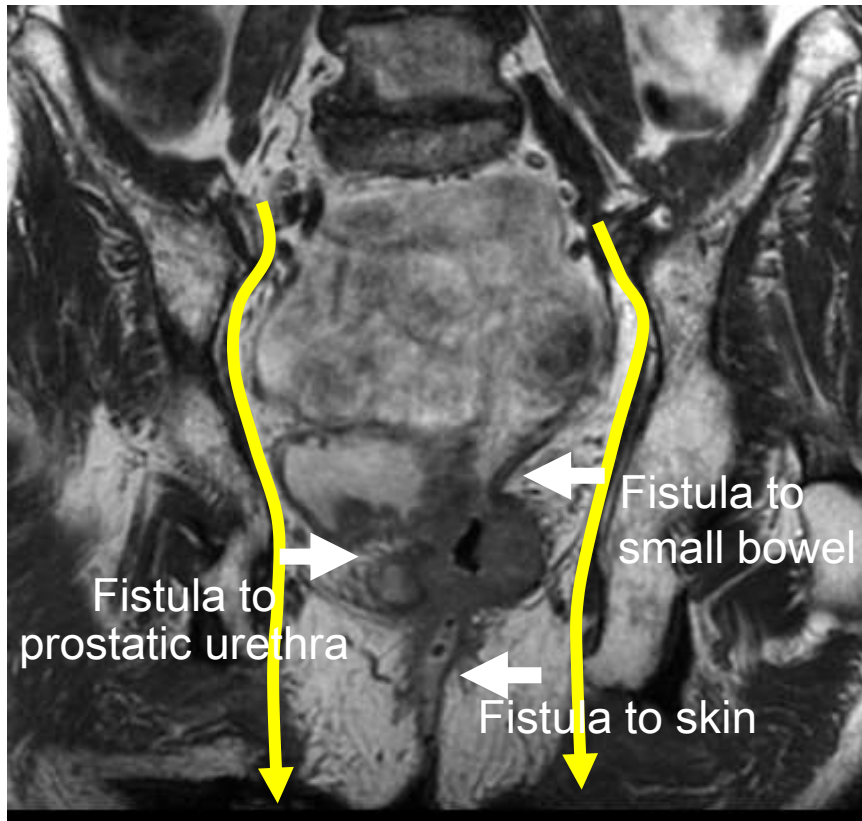
Recurrent rectal cancer s/p APR

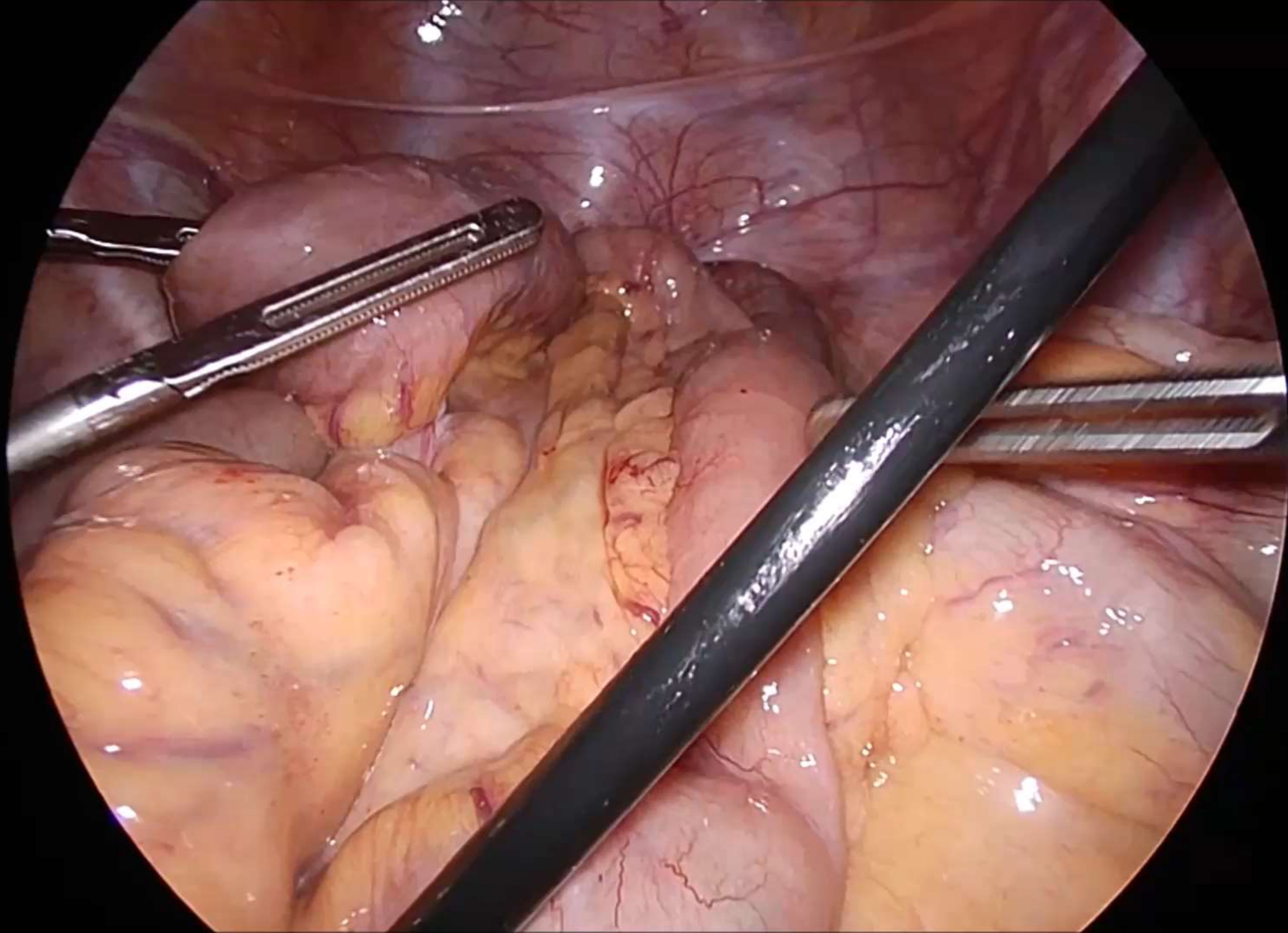
w/ fistula to SB, prostatic urethra, perineal skin



Recurrent rectal cancer s/p APR

w/ fistula to SB, prostatic urethra, perineal skin

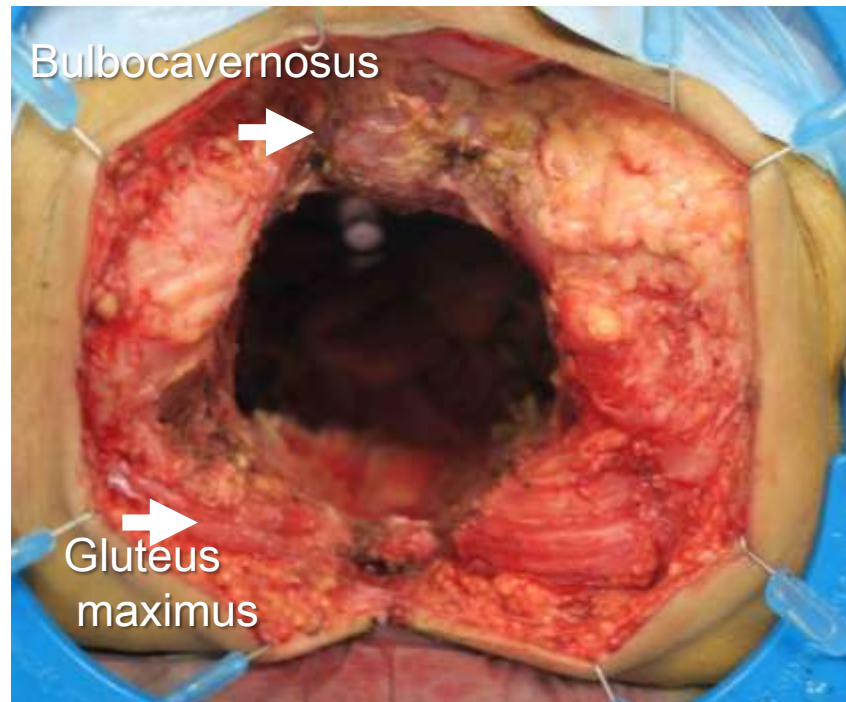




Bleeding : 380 ml

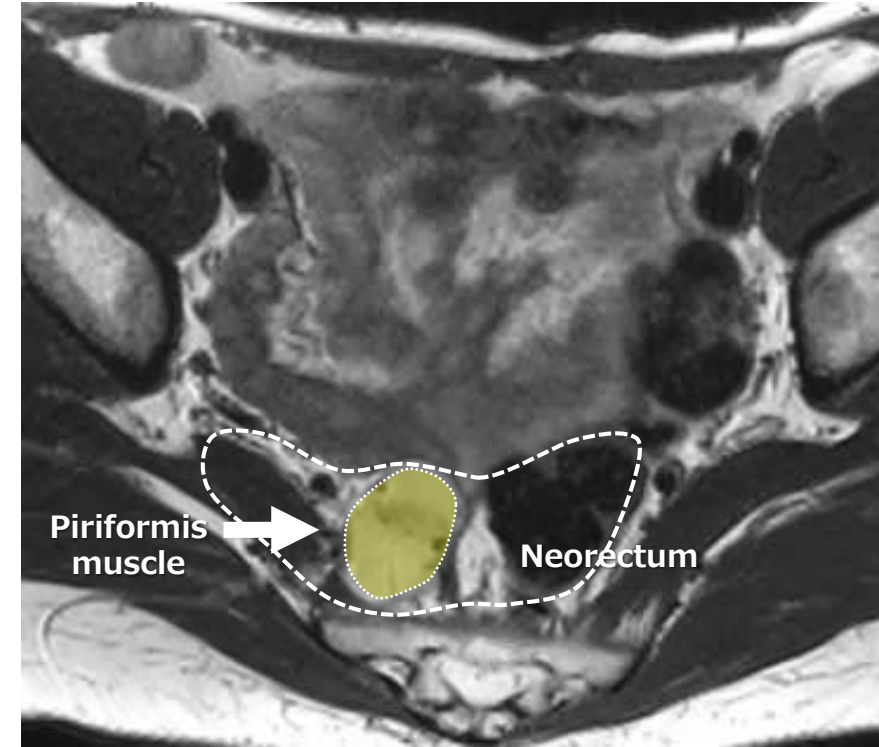
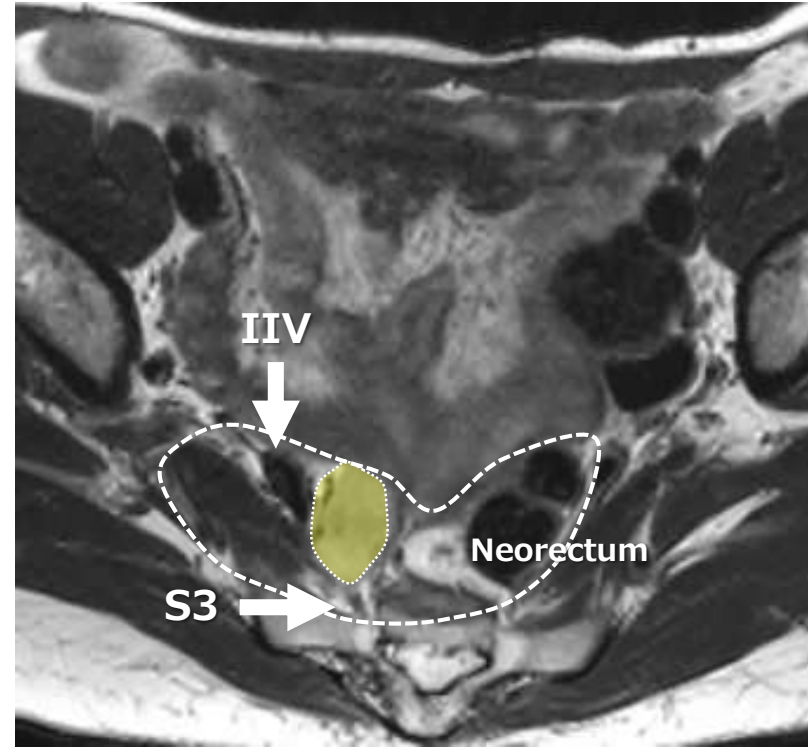
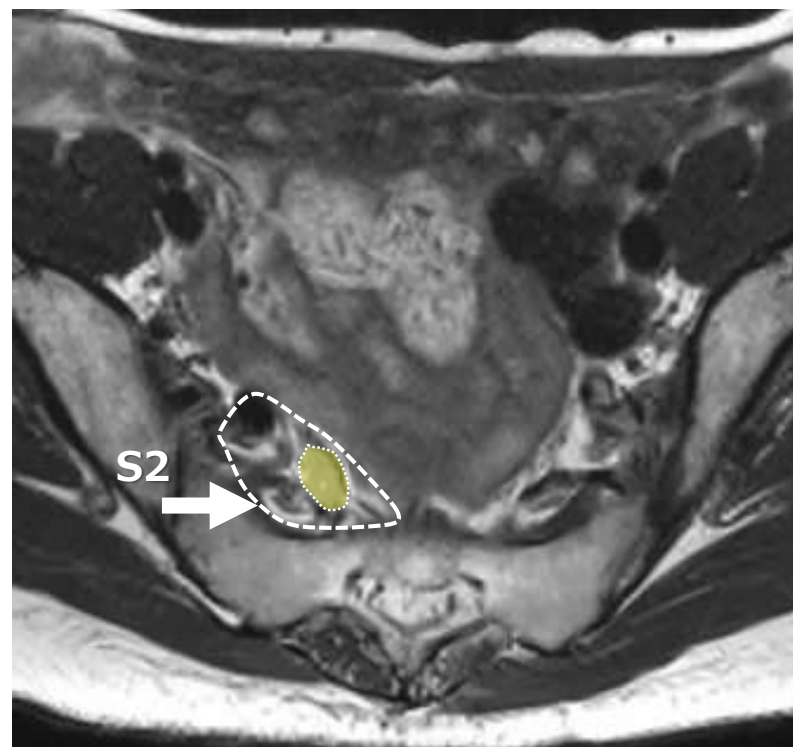
Postop complication : UTI

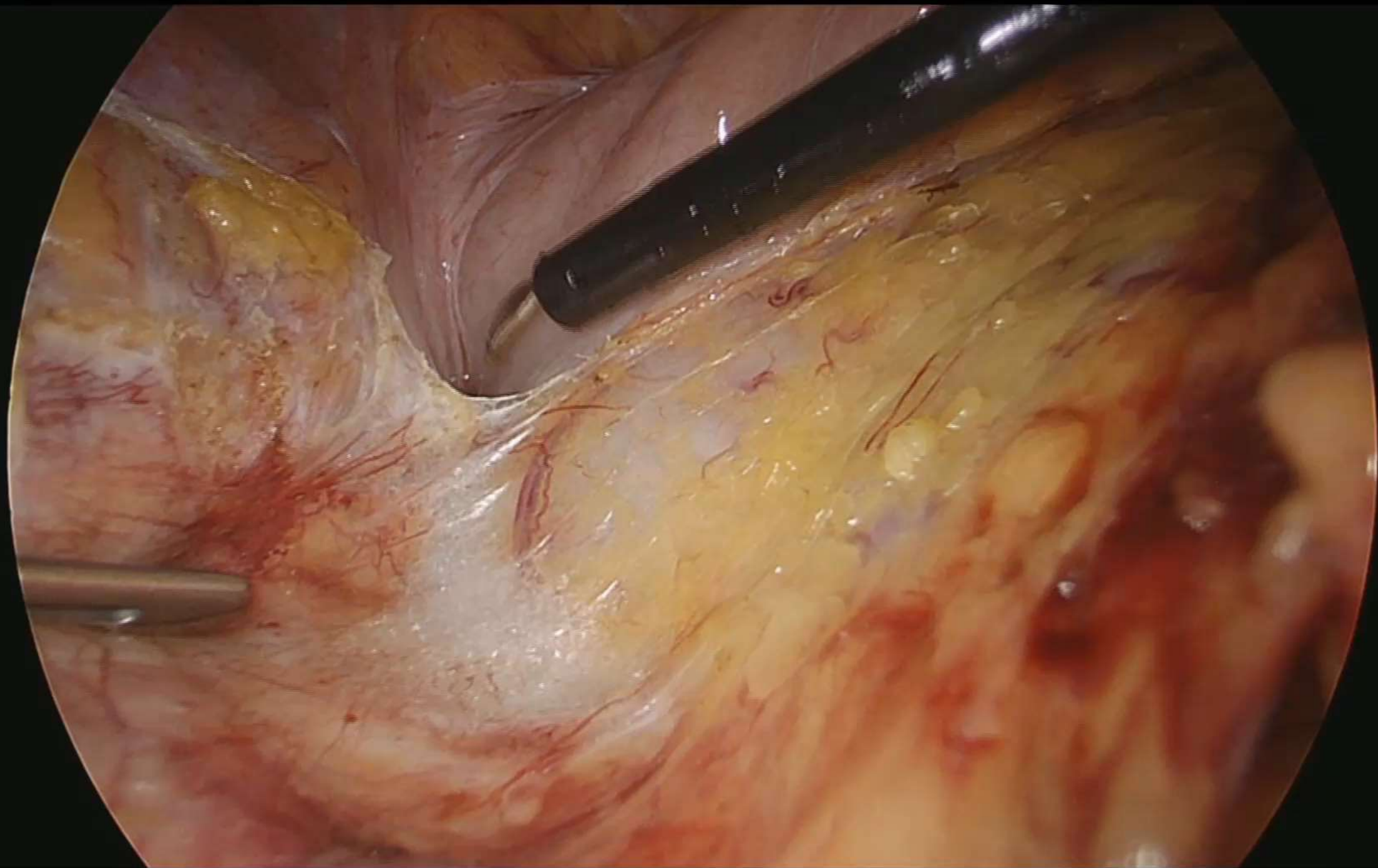
Pathology : Recurrent rectal cancer invading to bladder, prostate, seminal vesicle and ileum. **Negative margin (R0)**



Recurrent rectal cancer in the right lateral pelvis

- 33 yo female, s/p LAR (pT3N0M0)
- 3 yr... lateral pelvic recurrence with sciatic pain
- FOLFOX/bev → chemoradiotherapy (60Gy)
- Laparoscopic redo LAR + S2-4 sacral nerves + piriformis/coccygeal muscles





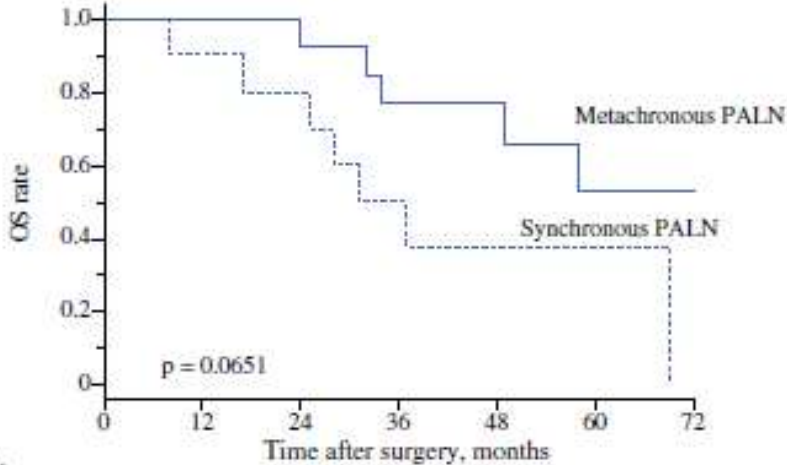
- Bleeding: 400 ml
- No complications
- Normal urinary/gait function
- Pathology: R0 with negative margin



Salvage retroperitoneal LN dissection

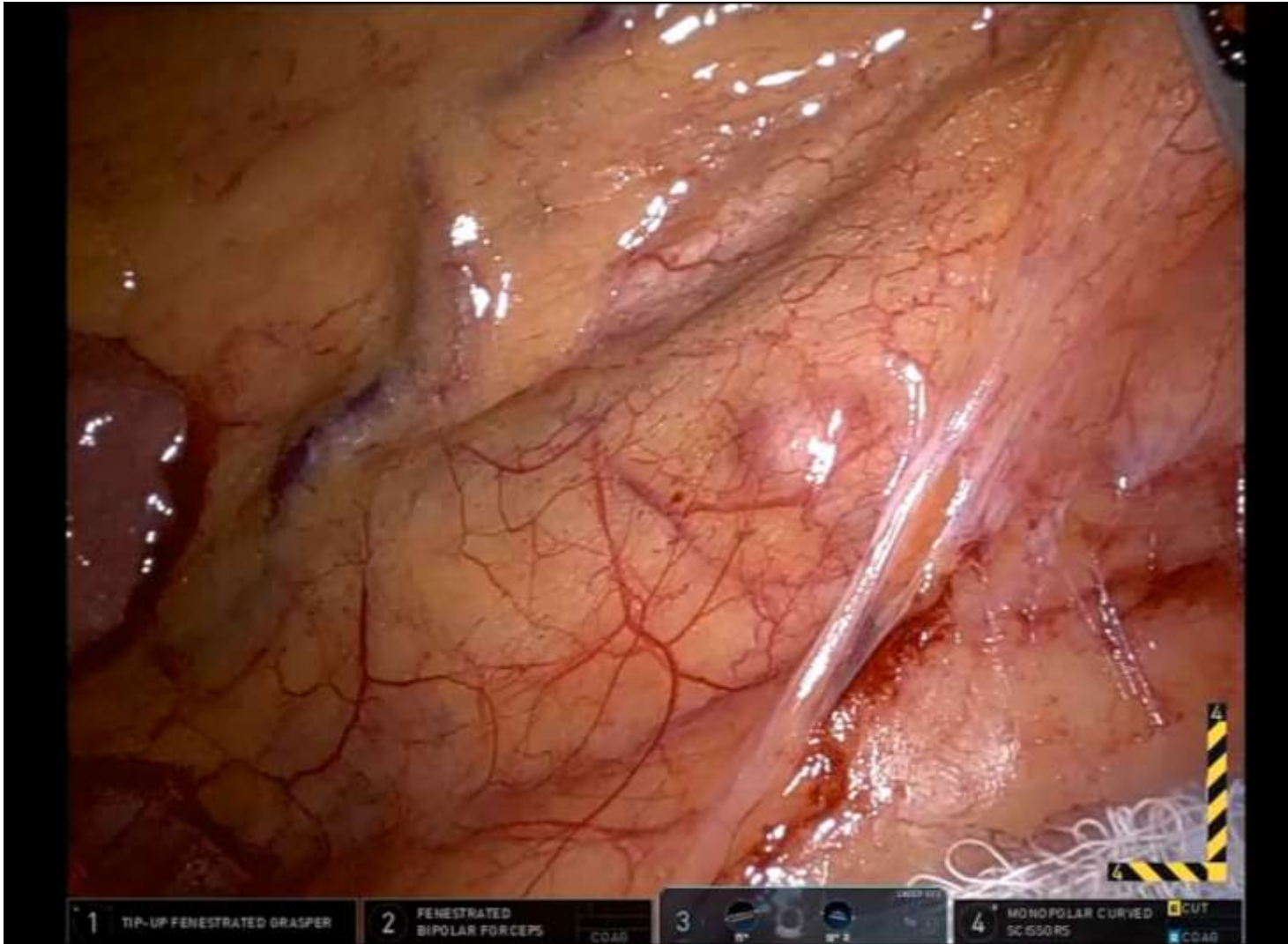


OS of path-positive PALN



Number at risk

Metachronous PALN	15	13	13	9	7	4	1
Synchronous PALN	13	10	9	6	3	2	0

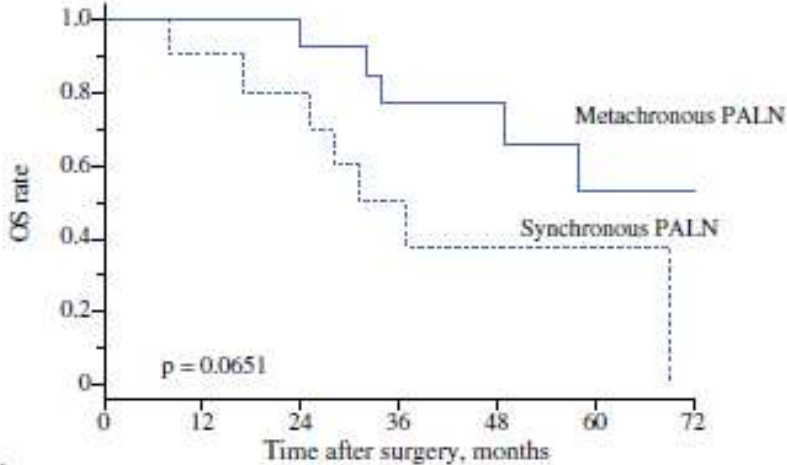


Ikeda, Konishi, SSAT 2024
 Bhutiani, Konishi, ASO 2024

Salvage retroperitoneal LN dissection

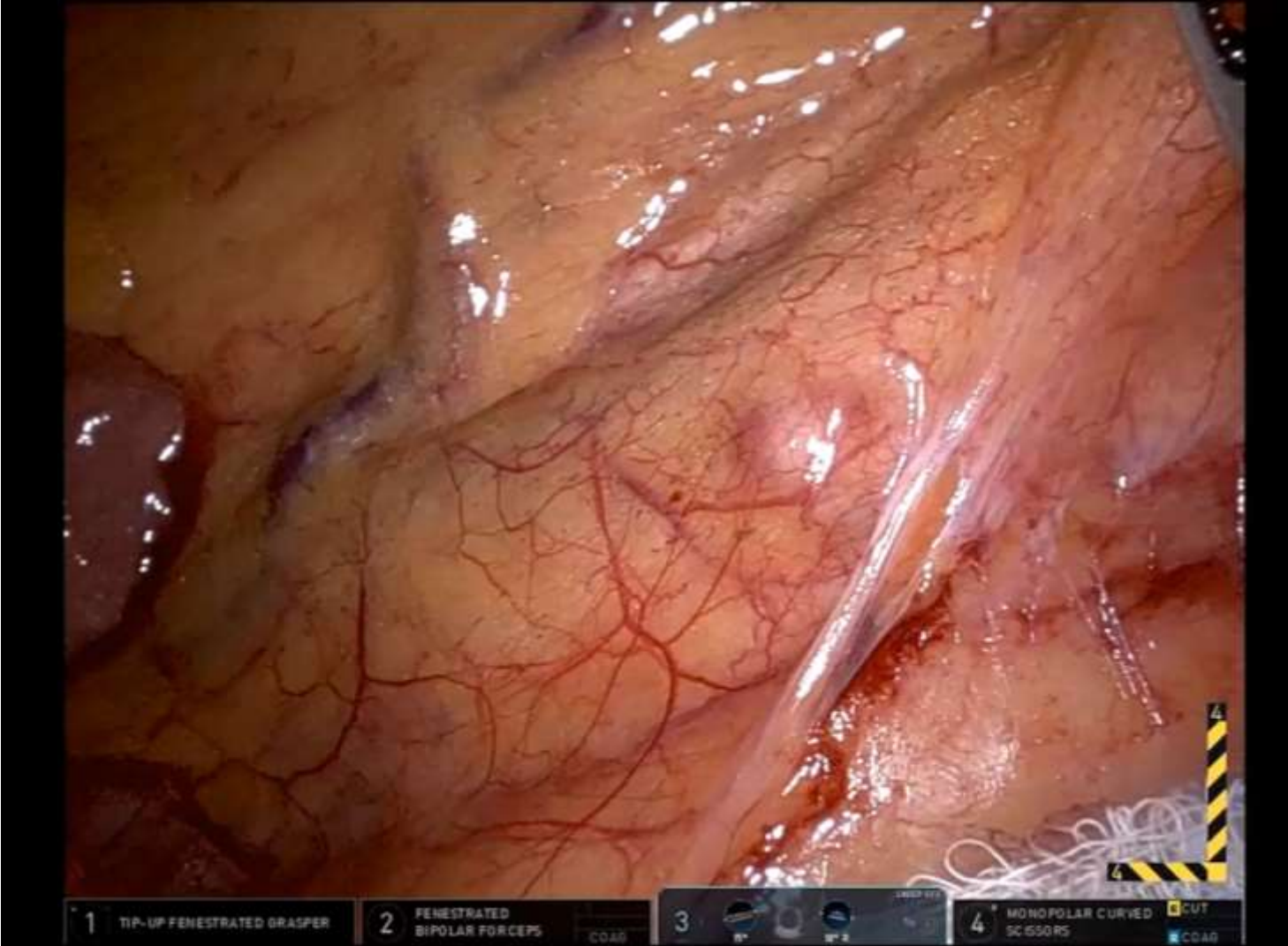


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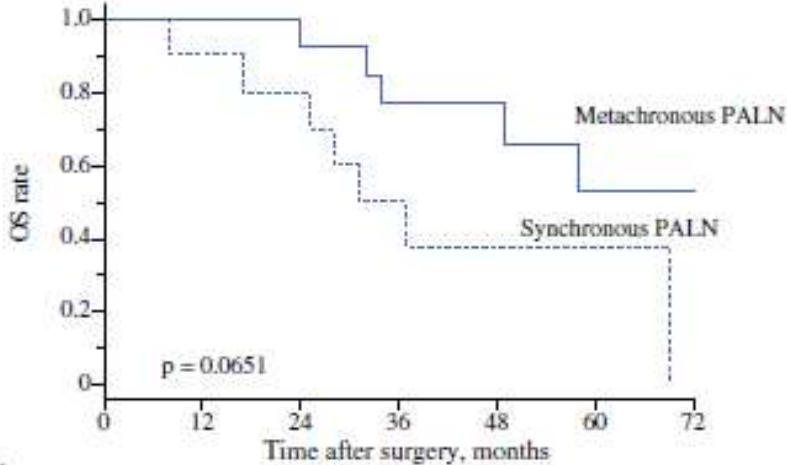


Ikeda, Konishi, SSAT 2024
 Bhutiani, Konishi, ASO 2024

Salvage retroperitoneal LN dissection



OS of path-positive PALN



	0	12	24	36	48	60	72
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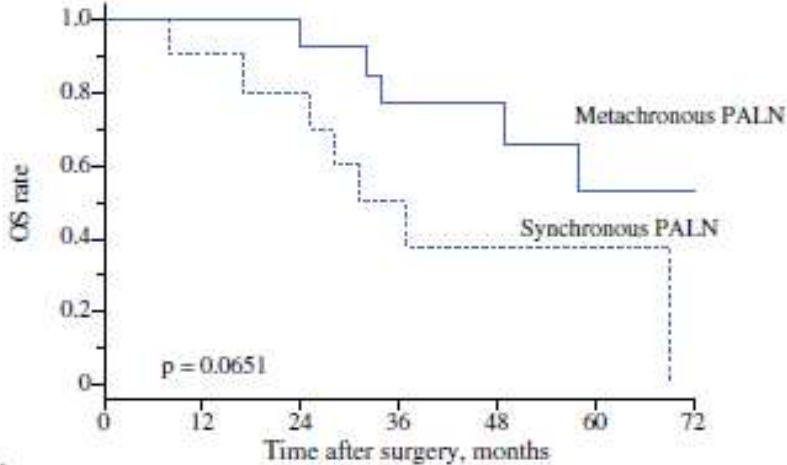


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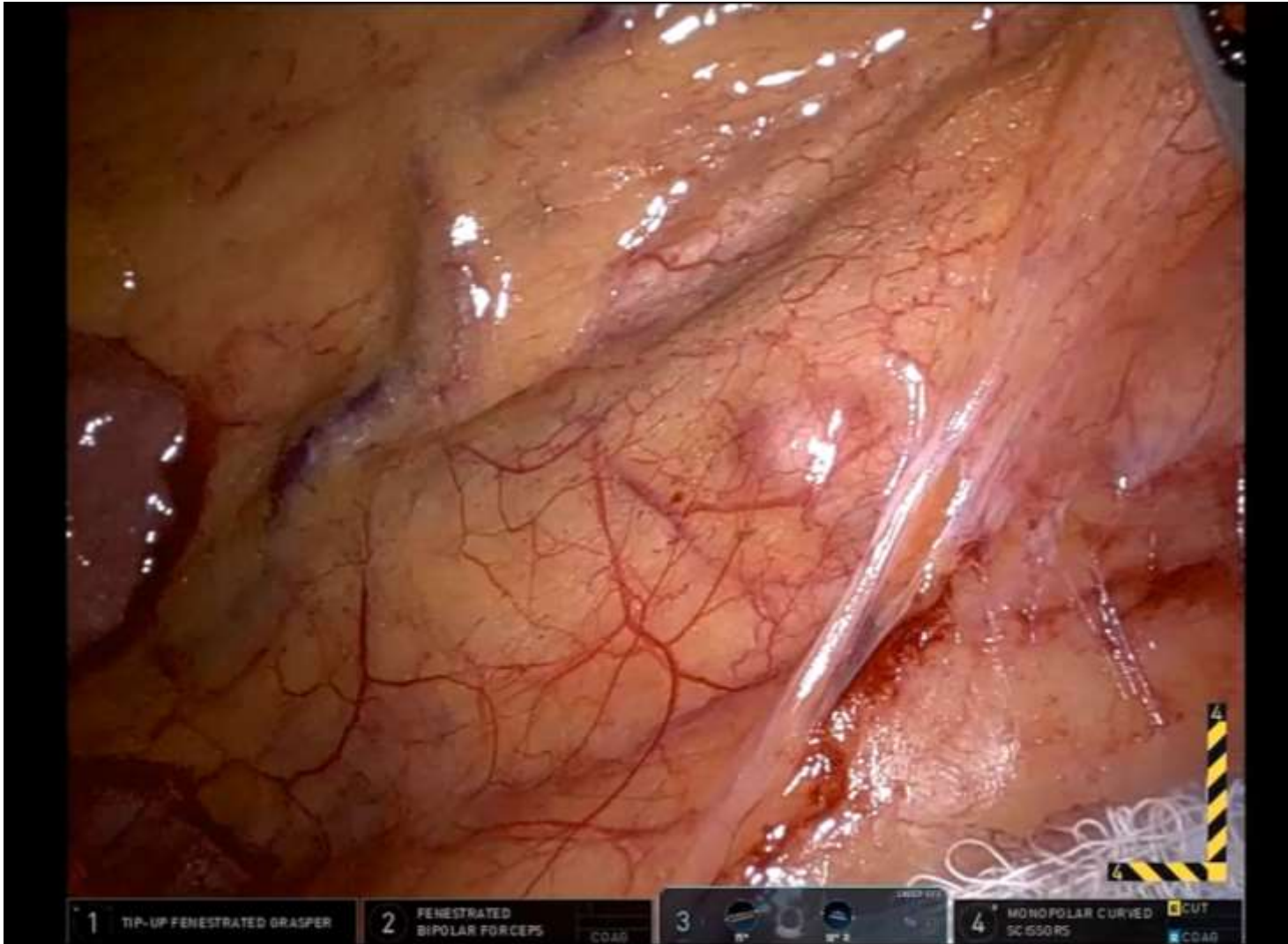


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Ikeda, Konishi, SSAT 2024
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MIS for recurrent rectal cancer...

- Goal: R0 resection
- Choose planes in each pelvic compartment for R0
- Dare to be “too much” than regretful R1
- Prepare for bleeding

Thank you!

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