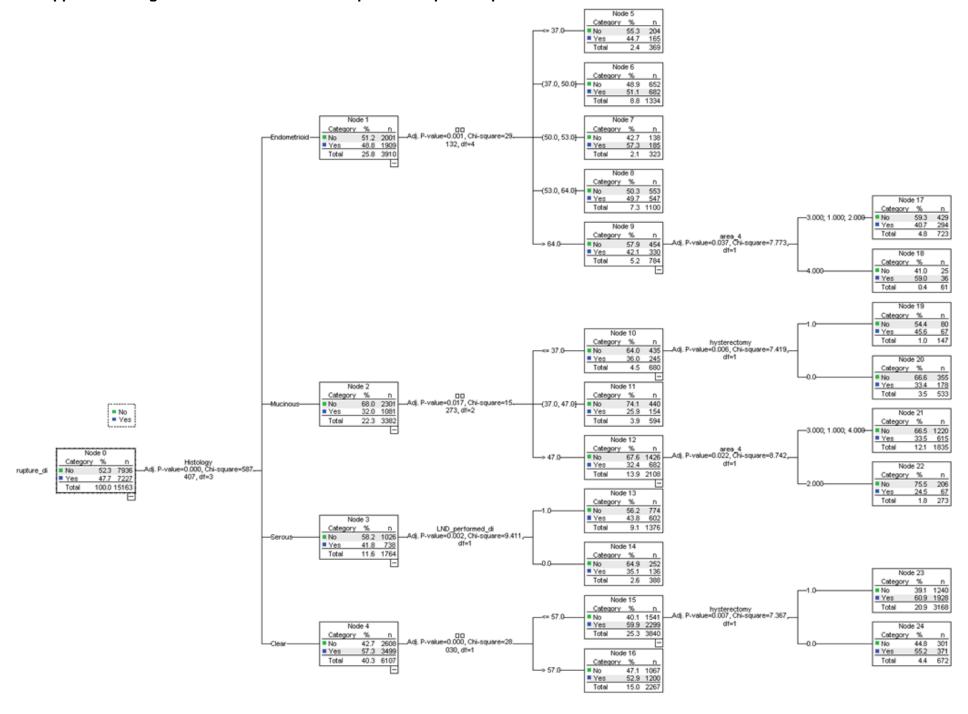
**Appendix 1. Regression-Tree Model for Intraoperative Capsule Rupture** 

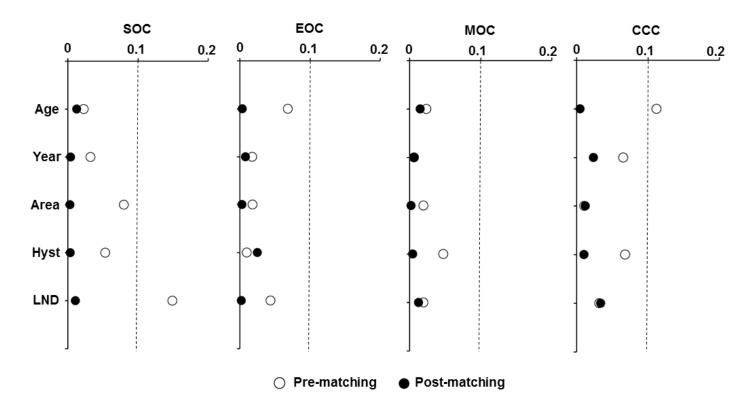
Histology	Age	Area	Hyst	LND	Node*	No. at risk (%)	Rupture (%)	<i>P</i> -value
Clear cell	≤57		Yes		23	3,168 (20.9%)	1,928 (60.9%)	0.007
Endometrioid	>64	N			18	61 (0.4%)	36 (59.0%)	0.037
Endometrioid	50-53				7	323 (2.1%)	185 (557.3%)	0.001
Clear cell	≤57		No		24	672 (4.4%)	371 (55.2%)	0.007
Clear cell	>57				16	2,267 (15.0%)	1,200 (52.9%)	< 0.001
Endometrioid	37-50				6	1,334 (8.8%)	682 (51.1%)	0.001
Endometrioid	53-64				8	1,100 (7.3%)	547 (49.7%)	0.001
-	-	-	-	-	0	15,163 (100%) <sup>†</sup>	7,227 (47.7%)†	-
Mucinous	≤37		Yes		19	147 (1.0%)	67 (45.6%)	0.006
Endometrioid	≤37				5	369 (2.4%)	165 (44.7%)	0.001
Serous				Yes	13	1,376 (9.1%)	602 (43.8%)	0.002
Endometrioid	>64	E, C, W			17	723 (4.8%)	294 (40.7%)	0.037
Serous				No	14	388 (2.6%)	136 (35.1%)	0.002
Mucinous	>47	E,W, N			21	1,835 (12.1%)	615 (33.5%)	0.022
Mucinous	≤37		No		20	533 (3.5%)	178 (33.4%)	0.006
Mucinous	37-47				11	594 (3.9%)	154 (25.9%)	0.017
Mucinous	>47	С			22	273 (1.8%)	67 (24.5%)	0.022

Clustered into 16 unique nodes, and histology type was the strongest factor for stratification followed by age. Absolute difference between the highest and lowest group was 36.4%. \*Node model is displayed in Appendix 2. †Cohort level statistics as a reference value. Abbreviations: Hyst, hysterectomy; LND, lymphadenectomy; N, North; E, East, C, Central; and W, West.

Appendix 2. Regression-tree model for intraoperative capsule rupture.



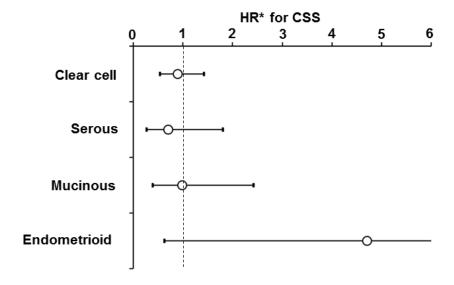
Appendix 3. Effect size evaluation before and after propensity score matching.



Standardized differences are shown per histology cohort. The value of 0.1 or less indicates a good-balance between the two groups (ruptured group *versus* non-ruptured group). Abbreviations: SOC, serous ovarian cancer; EOC, endometrioid ovarian cancer; MOC, mucinous ovarian cancer; CCC, clear cell ovarian cancer; Hyst, hysterectomy; and LND, lymphadenectomy.

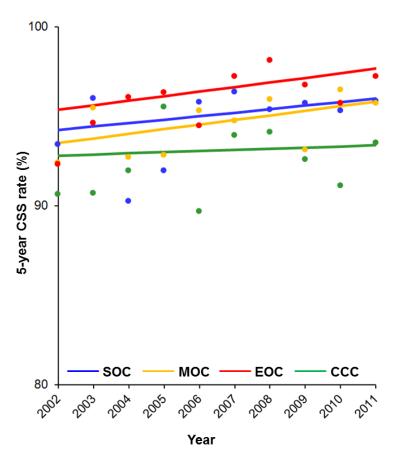
## Appendix 4. Postoperative chemotherapy for intraoperatively ruptured cases (lymphadenectomy)

## Postop chemotherapy vs observation



Among cases with intraoperative capsule rupture, effect of postoperative chemotherapy on CSS is shown per histology type. \*Adjusted for age and year of diagnosis, area, and hysterectomy use. Circles represent adjusted-HR, and bars represent 95% confidence interval. Abbreviations: CSS, cause-specific survival; and HR, hazard ratio.

Appendix 5. Cohort-level 5-year CSS rates per histology types.



The 5-year CSS rates are shown per histology cohort: serous, APC 0.2, 95%CI -0.2 to 0.7, P=0.319; mucinous, APC 0.3, 95%CI -0.1 to 0.6, P=0.125; endometrioid, APC 0.3, 95%CI -0.1 to 0.6, P=0.111; and clear cell, APC 0.1, 95%CI -0.5 to 0.6, P=0.787.

Appendix 6. Association of Registry Area and Intraoperative Capsule Rupture

	East	Central	West	North	P-value
Histology type					<0.001
Serous	669 (10.6%)	260 (12.5%)	672 (12.4%)	163 (11.9%)	
Mucinous	1,302 (20.7%)	450 (21.7%)	1,308 (24.1%)	322 (23.5%)	
Endometrioid	1,668 (26.5%)	514 (24.8%)	1,357 (25.0%)	371 (27.1%)	
Clear cell	2,649 (42.1%)	848 (40.9%)	2,097 (38.6%)	513 (37.5%)	
Intraoperative capsule rupture					0.022
No	3,219 (51.2%)	1,121 (54.1%)	2,901 (53.4%)	695 (50.8%)	
Yes	3,069 (48.8%)	951 (45.9%)	2,533 (46.6%)	674 (49.2%)	

Number (percentage per column) is shown. Chi-square test for *P*-values.

**Appendix 7. Frequency Table for Table 2.** 

			T		
	Whole cohort		Ruptured cases		
Characteristics	No. at risk	Rupture	No. at risk	Postop chemo	
Age					
<40	1,993	881	881	642	
40-49	3,612	1,807	1,807	1,479	
50-59	4,457	2,303	2,303	1,893	
60-69	3,286	1,505	1,505	1,238	
≥70	1,815	731	731	394	
Year					
2002-2005	2,512	1,193	1,193	967	
2006-2010	4,955	2,406	2,406	1,896	
2011-2015	7,696	3,628	3,628	2,783	
Registry area					
East	6,288	3,069	3,069	2,347	
Central	2,072	951	951	767	
West	5,434	2,533	2,533	2,012	
North	1,369	674	674	520	
Hysterectomy					
No <sup>†</sup>	3,502	1,523	1,523	1,037	
Yes	11,661	5,704	5,704	4,609	
Lymphadenectomy					
No <sup>†</sup>	2,991	1,264	1,264	441	
Yes	12,172	5,963	5,963	1,140	
Histology type					
Serous	1,764	738	738	578	
Mucinous	3,382	1,081	1,081	673	
Endometrioid	1,909	1,909	1,909	1,502	
Clear cell	3,499	3,499	3,499	2,893	