

**Supplementary Table 1** Complete pre-, peri- and postoperative demographic and clinical characteristics of study participants

Clinical Characteristics	Total (N = 73)	60 minutes (N = 59)	90 minutes (N = 14)	Crude P-value	Adjusted P-value
Age (yr)	53.12 ± 11.65	52.35 ± 12.26	56.40 ± 8.23		1.0000
Body mass index (kg/m <sup>2</sup> )	24.08 ± 3.24	23.81 ± 3.18	25.21 ± 3.37		1.0000
Sex (male:female)	29 : 44 (39.7% : 60.3%)	24 : 35 (40.7% : 59.3%)	5 : 9 (35.7% : 64.3%)		1.0000
American Society of Anesthesiologists (ASA) score					
- I-II	18 (24.7%)	16 (27.7%)	2 (14.3%)		1.0000
- III-IV	55 (75.3%)	43 (72.9%)	12 (85.7%)		
Histology					
- Diffuse type adenocarcinoma	27 (37.0%)	22 (37.3%)	5 (35.7%)		1.0000
- Intestinal type adenocarcinoma	15 (20.5%)	13 (22.0%)	2 (14.3%)		
- Signet ring cell adenocarcinoma	31 (42.5%)	24 (40.7%)	7 (50.0%)		
Mucinous components in the tumor	9 (12.3%)	9 (15.3%)	0 (0.0%)		1.0000
Colonic wall infiltrated by the tumor	16 (21.9%)	12 (20.3%)	4 (28.6%)		1.0000
Tumor grade					
- Moderately differentiated (G2)	10 (13.7%)	8 (13.6%)	2 (14.3%)		1.0000
- Poorly differentiated (G3)	63 (86.3%)	51 (86.4%)	12 (85.7%)		
Stage T (size of tumor)					
- 1-2	10 (13.7%)	9 (15.3%)	1 (7.1%)		1.0000
- 3	44 (60.2%)	33 (55.9%)	11 (78.6%)		
- 4	19 (26.1%)	17 (28.8%)	2 (14.3%)		
Stage N (lymph node metastases)					
- 0	26 (35.6%)	19 (32.2%)	7 (50.0%)		1.0000
- 1	13 (17.8%)	12 (20.3%)	1 (7.1%)		
- 2	16 (21.9%)	12 (20.3%)	4 (28.6%)		
- 3	18 (24.7%)	16 (27.1%)	2 (14.3%)		
Lineage of chemotherapy					
- First line	68 (93.2%)	54 (91.5%)	14 (100.0%)		1.0000
- Second line	4 (5.5%)	4 (6.8%)	0 (0.0%)		
Usage of trastuzumab (Herceptin)	5 (6.8%)	3 (5.1%)	2 (14.3%)		1.0000
Any previous surgeries related to CRC	31 (42.5%)	24 (40.7%)	7 (50.0%)		1.0000
Type of previous surgeries					
- Primary tumor resection	3 (4.1%)	2 (3.4%)	1 (7.1%)		1.0000
- Laparoscopic exploration	28 (38.4%)	21 (35.6%)	7 (50.0%)		1.0000

Table S1 (cont.)

Clinical Characteristics	Total (N = 73)	60 minutes (N = 59)	90 minutes (N = 14)	Crude P-value	Adjusted P-value
Peritoneal carcinomatosis index	3.29 ± 3.19	3.14 ± 3.15	3.93 ± 3.41		1.0000
CC score					
- CC-0	68 (93.2%)	55 (93.2%)	13 (93.3%)		1.0000
- CC-1	5 (6.8%)	4 (6.8%)	1 (7.1%)		
Doxorubicin (mg)	27.23 ± 3.01	27.32 ± 3.22	26.88 ± 1.99		1.0000
Cisplatin (mg)	134.57 ± 17.54	134.61 ± 18.97	134.41 ± 9.93		1.0000
Length of surgery excl. HIPEC (min)	292.33 ± 77.84	299.07 ± 75.99	263.93 ± 81.98	<b>0.0718</b>	1.0000
Surgical procedures					
- Peritonectomy: parietal	42 (57.5%)	35 (59.3%)	7 (50.0%)		1.0000
- Peritonectomy: pelvis	18 (24.7%)	15 (25.4%)	3 (21.4%)		1.0000
- Peritonectomy: omental bursa	18 (24.7%)	18 (30.5%)	0 (0.0%)	<b>0.0157</b>	1.0000
- Peritonectomy: right upper quadrant	17 (23.3%)	14 (23.7%)	3 (21.4%)		1.0000
- Peritonectomy: left upper quadrant	25 (34.2%)	20 (33.9%)	5 (35.7%)		1.0000
- Anastomosis: small bowel–small bowel	73 (100.0%)	59 (100.0%)	14 (100.0%)		1.0000
- Anastomosis: stomach–small bowel	4 (5.5%)	3 (5.1%)	1 (7.1%)		1.0000
- Anastomosis: small bowel–colon	6 (8.2%)	4 (6.8%)	2 (14.3%)		1.0000
- Anastomosis: colon–colon	10 (13.7%)	8 (13.6%)	2 (14.3%)		1.0000
- Anastomosis: colon–rectum	3 (4.1%)	2 (3.4%)	1 (7.1%)		1.0000
- Anastomosis: esophagus–small bowel	69 (94.5%)	56 (94.9%)	13 (92.9%)		1.0000
- Colostomy	3 (4.1%)	3 (5.1%)	0 (0.0%)		1.0000
- Ileostomy	1 (1.4%)	1 (1.7%)	0 (0.0%)		1.0000
- Stomach resection	73 (100.0%)	59 (100.0%)	14 (100.0%)		1.0000
- Small bowel resection	4 (5.5%)	3 (5.1%)	1 (7.1%)		1.0000
- Colon resection	19 (26.0%)	15 (25.4%)	4 (28.6%)		1.0000
- Rectosigmoid resection	4 (5.5%)	4 (6.8%)	0 (0.0%)		1.0000
- Splenectomy	12 (16.4%)	12 (20.3%)	0 (0.0%)		1.0000
- Cholecystectomy	57 (78.1%)	46 (78.0%)	11 (78.6%)		1.0000
- Greater omentectomy	45 (61.6%)	34 (57.6%)	11 (78.6%)		1.0000
- Lesser omentectomy	30 (41.1%)	20 (33.9%)	10 (71.4%)	<b>0.0153</b>	0.6648
- Pancreatectomy	6 (8.2%)	6 (10.2%)	0 (0.0%)		1.0000
- Hepatic metastasectomy	5 (6.8%)	4 (6.8%)	1 (7.1%)		1.0000
- Hysterectomy	8 (11.0%)	8 (13.6%)	0 (0.0%)		1.0000
- Adnexectomy	24 (32.9%)	21 (35.6%)	3 (21.4%)		1.0000
- Resection of other organs	9 (12.3%)	8 (13.6%)	1 (7.1%)		1.0000

Table S1 (cont.)

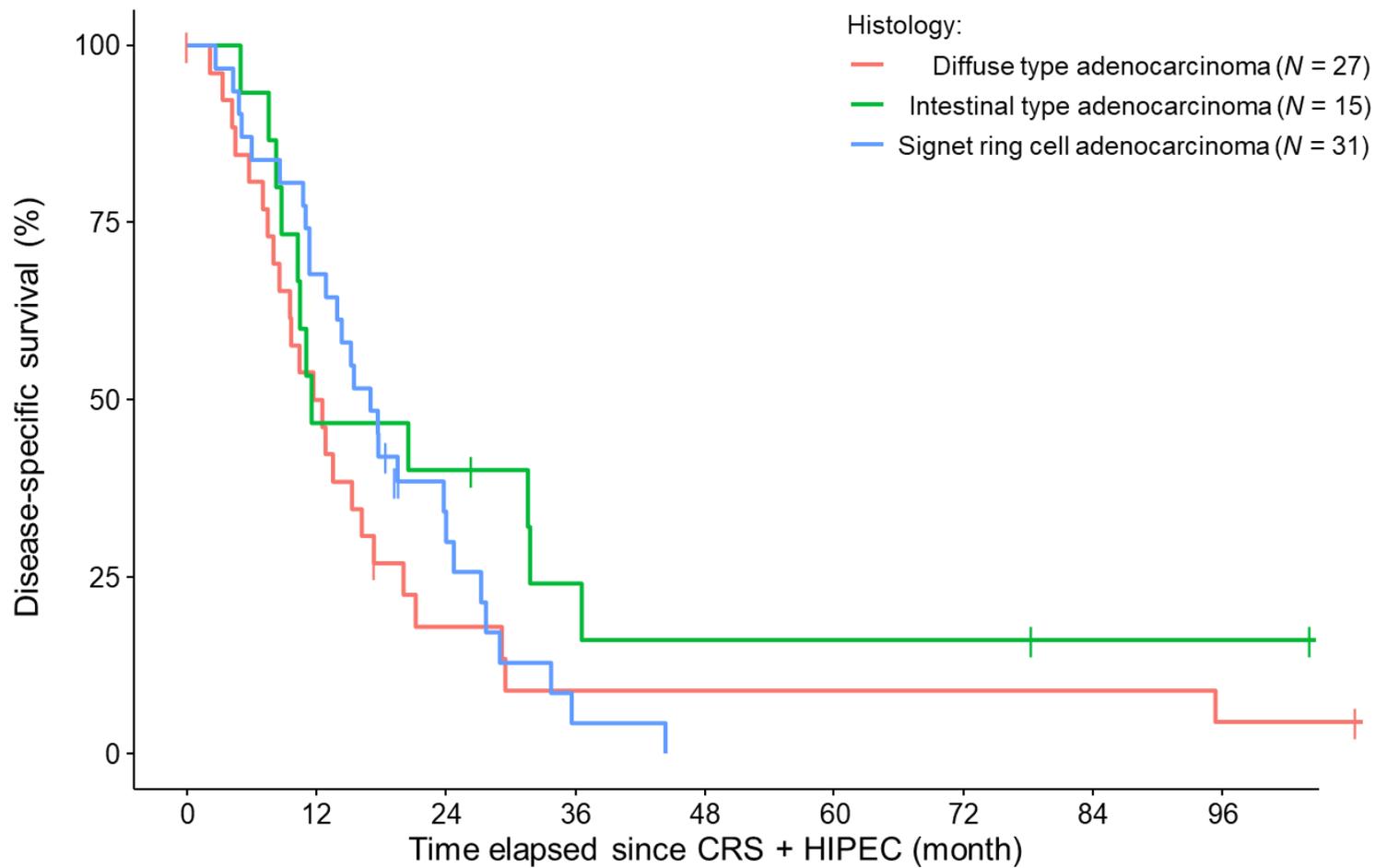
Clinical Characteristics	Total (N = 73)	60 minutes (N = 59)	90 minutes (N = 14)	Crude P-value	Adjusted P-value
Surgical procedures					
- Pleural aspiration	10 (13.7%)	7 (11.9%)	3 (21.4%)		1.0000
- Thorax drainage	19 (26.0%)	17 (28.8%)	2 (14.3%)		1.0000
Blood concentrate required during surgery					
- Erythrocyte	23 (31.5%)	19 (32.2%)	4 (28.6%)		1.0000
- Erythrocyte (unit)	0.74 ± 1.59	0.81 ± 1.73	0.43 ± 0.76		1.0000
- Fresh frozen plasma	33 (45.2%)	32 (54.2%)	1 (7.1%)	<b>0.0009</b>	0.0797
- Fresh frozen plasma (unit)	2.01 ± 2.83	2.44 ± 2.97	0.21 ± 0.80	<b>0.0019</b>	0.1546
Length of hospital stay (day)	21.48 ± 12.88	22.85 ± 13.93	15.71 ± 3.12	<b>0.0134</b>	1.0000
Length of intensive care unit stay (day)	5.16 ± 4.62	5.49 ± 5.01	3.79 ± 1.89		1.0000
Complication grade (Clavien–Dindo)					
- I	33 (45.2%)	27 (45.8%)	6 (42.8%)		
- II	20 (27.4%)	16 (27.1%)	4 (28.6%)		1.0000
- III	16 (21.9%)	12 (20.3%)	4 (28.6%)		
- IV	3 (4.1%)	3 (5.1%)	0 (0.0%)		
- V	1 (1.4%)	1 (1.7%)	0 (0.0%)		
Complications					
- Anastomotic insufficiency/leak	3 (4.1%)	3 (5.1%)	0 (0.0%)		1.0000
- Pancreatitis	2 (2.7%)	2 (3.4%)	0 (0.0%)		1.0000
- Fistula	1 (1.4%)	1 (1.7%)	0 (0.0%)		1.0000
- Pulmonary embolism	1 (1.4%)	0 (0.0%)	1 (7.1%)		1.0000
- Hematologic	2 (2.7%)	0 (0.0%)	2 (14.3%)		1.0000
- Mortality (30 days)	1 (1.4%)	1 (1.7%)	0 (0.0%)		1.0000
- Reoperation	7 (9.6%)	6 (10.2%)	1 (7.1%)		1.0000
Medical history					
- Hypertension	7 (9.6%)	6 (10.2%)	1 (7.1%)		1.0000
- Pulmonary embolism	6 (8.2%)	4 (6.8%)	2 (14.3%)		1.0000
- Thyroid diseases	3 (4.1%)	2 (3.4%)	1 (7.1%)		1.0000
Preoperative laboratory measurements					
- White blood cell count (10 <sup>9</sup> /L)	5.96 ± 1.96	6.13 ± 2.07	5.21 ± 1.24		1.0000
- Red blood cell count (10 <sup>12</sup> /L)	4.08 ± 0.47	4.06 ± 0.48	4.16 ± 0.45		1.0000
- Hemoglobin (g/dL)	11.67 ± 1.42	11.65 ± 1.45	11.78 ± 1.31		1.0000
- Hematocrit (%)	36.00 ± 3.51	36.00 ± 3.64	36.00 ± 3.01		1.0000
- Platelet count (10 <sup>9</sup> /L)	234.85 ± 68.80	234.64 ± 68.00	235.71 ± 74.76		1.0000

Table S1 (cont.)

Clinical Characteristics	Total (N = 73)	60 minutes (N = 59)	90 minutes (N = 14)	Crude P-value	Adjusted P-value
Preoperative laboratory measurements					
- Mean corpuscular volume (fL)	88.69 ± 7.58	89.07 ± 7.69	87.08 ± 7.12		1.0000
- Mean corpuscular hemoglobin (pg)	28.77 ± 3.33	28.83 ± 3.34	28.53 ± 3.40		1.0000
- Mean corpuscular hemoglobin concentration (g/L)	323.94 ± 19.94	323.28 ± 20.47	326.74 ± 17.96		1.0000
- Red blood cell distribution width (%)	16.20 ± 2.78	16.08 ± 2.68	16.73 ± 3.24		1.0000
- Aspartate transaminase (U/L)	32.41 ± 12.29	33.10 ± 12.98	29.50 ± 8.60		1.0000
- Alanine transaminase (U/L)	32.07 ± 19.95	33.51 ± 21.22	26.00 ± 12.06		1.0000
- Gamma-glutamyl transferase (U/L)	60.47 ± 53.83	62.37 ± 51.52	52.43 ± 64.20	<b>0.0407</b>	1.0000
- Alkaline phosphatase (U/L)	85.85 ± 35.01	85.41 ± 34.42	87.71 ± 38.73		1.0000
- Lipase (U/L)	77.51 ± 58.30	77.58 ± 63.20	77.21 ± 31.71		1.0000
- Creatinine (μmol/L)	68.54 ± 17.73	68.92 ± 18.04	66.93 ± 16.89		1.0000
- Estimated glomerular filtration rate ( $\frac{ml}{min \cdot 1.73m^2}$ )	95.47 ± 16.09	96.14 ± 16.10	92.64 ± 16.32		1.0000
- Serum total protein (g/dL)	6.63 ± 0.59	6.57 ± 0.59	6.91 ± 0.54	<b>0.0570</b>	1.0000
- Carcinoembryonic antigen (ng/mL)	3.25 ± 2.72	3.34 ± 3.00	2.92 ± 1.24		1.0000
- Carbohydrate antigen 19-9 (U/mL)	15.47 ± 14.74	15.52 ± 14.50	15.28 ± 16.23		1.0000
Recurrence of the tumor	13 (17.8%)	10 (16.9%)	3 (21.4%)		1.0000
Median overall survival (mo)	13.93 (11.37 - 17.77)	12.85 (10.78 - 17.31)	27.30 (16.20 - NA) <sup>1</sup>	-	0.1790 <sup>2</sup>
Median disease-specific survival (mo)	14.14 (11.37 - 19.55)	12.86 (11.01 - 17.31)	27.30 (16.20 - NA) <sup>1</sup>	-	0.1250 <sup>2</sup>

The unit of frequency and survival data are the numbers of observations (percentage) and median survival time (95% confidence interval), respectively. Continuous data are presented as the mean ± standard deviation.

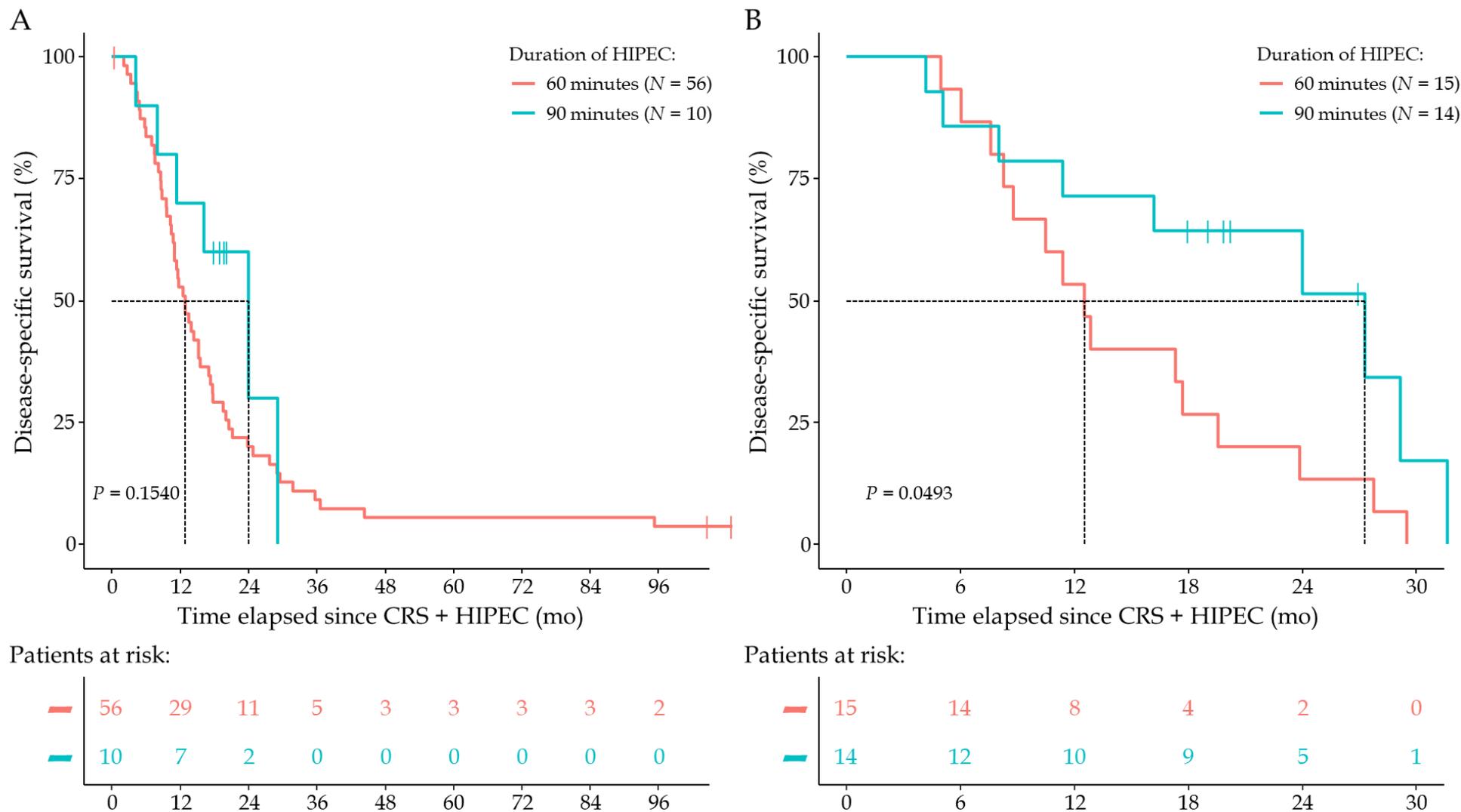
<sup>1</sup> Upper value of the 95% confidence interval could not be computed due to not enough observations. <sup>2</sup> P-Value acquired from Cox regression survival model. CC: Sugarbaker's completeness of cytoreduction score; HIPEC: Hyperthermic Intraperitoneal Chemotherapy.



Patients at risk:

—	27	13	4	2	2	2	2	2	1
—	15	7	6	3	2	2	2	1	1
—	31	21	8	1	0	0	0	0	0
	0	12	24	36	48	60	72	84	96

**Supplementary Figure 1 Differences in disease-specific survival between patients with gastric cancer of different histological types who underwent cytoreductive surgery (CRS) and hyperthermic intraperitoneal chemotherapy (HIPEC).**



**Supplementary Figure 2 Differences in disease-specific survival between patients with gastric cancer who underwent cytoreductive surgery (CRS) and 60 or 90 minutes-long hyperthermic intraperitoneal chemotherapy (HIPEC).** Those patients were removed from the original cohort who (A) received trastuzumab and/or had immunohistochemically positive pathological results against HER2 (N = 7), or (B) had to undergo the procedure before 2016 (N = 44). The dotted line represents median survival.