

Supplementary Table 1. The results of ctDNA ddPCR compared with whole exome sequencing

CtDNA ddPCR	Whole exome sequencing results		
	Positive	Negative	Total
Positive	55	6	61
Negative	5	3	8
Total	60	9	69

Supplementary Table 2. Multivariable analysis of progression-free survival and overall survival according to baseline ctDNA of the patients with localized stage in the chemotherapy group

Prognostic Factor	Progression-free Survival		Overall Survival	
	Hazard Ratio (95% CI)	<i>P</i> Value	Hazard Ratio (95% CI)	<i>P</i> Value
Baseline ctDNA				
Low	1		1	
High	1.43 (0.66-3.08)	0.364	1.06 (0.49-2.31)	0.884
Age, years (<65 / ≥65)	1.00 (0.95-1.04)	0.898	1.02 (0.97-1.07)	0.397
Sex				
Male	1		1	
Female	0.83 (0.37-1.86)	0.657	0.88 (0.38-2.02)	0.755
Chemotherapy regimen				
FOLFIRINOX	1		1	
Others	0.14 (0.02-0.93)	0.041*	0.89 (0.13-6.30)	0.908
Second-line chemotherapy				
No			1	
Yes			2.53 (0.83-7.75)	0.104

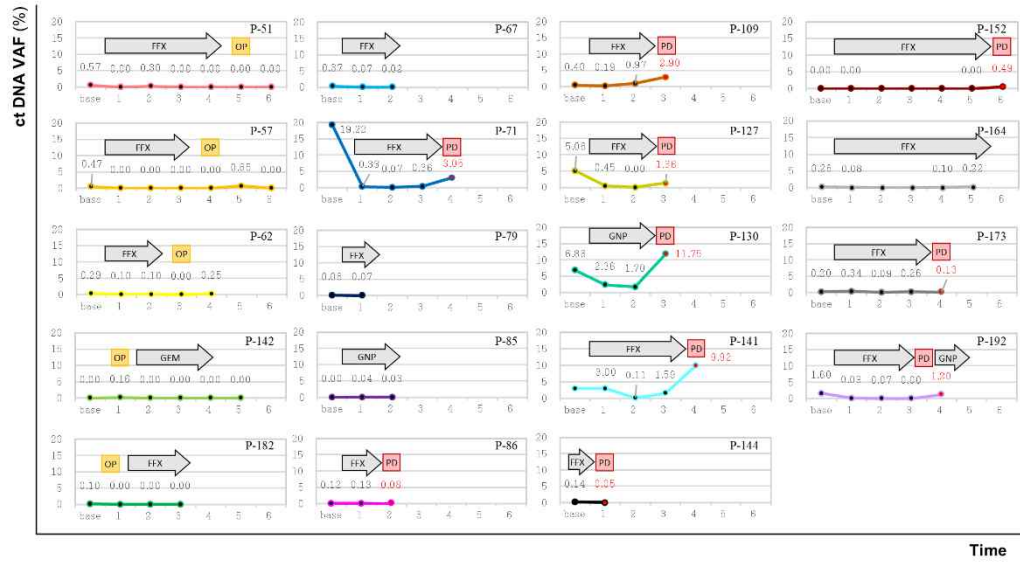
Supplementary Table 3. Multivariable analysis of progression-free survival and overall survival according to baseline ctDNA of the patients with metastatic stage in the chemotherapy group

Prognostic Factor	Progression-free Survival		Overall Survival	
	Hazard Ratio (95% CI)	P Value	Hazard Ratio (95% CI)	P Value
Baseline ctDNA				
Low	1		1	
High	1.57 (0.89-2.76)	0.119	1.75 (1.02-3.01)	0.044*
Age, years (<65 / ≥65)	0.98 (0.96-1.01)	0.223	0.99 (0.97-1.02)	0.541
Sex				
Male	1		1	
Female	0.68 (0.38-1.20)	0.186	1.28 (0.76-2.18)	0.358
Chemotherapy regimen				
FOLFIRINOX	1		1	
GnP	0.97 (0.53-1.78)	0.921	1.35 (0.77-2.36)	0.291
Others	1.97 (0.37-10.51)	0.425	1.19 (0.24-5.96)	0.830
Second-line chemotherapy				
No			1	
Yes			0.54 (0.26-1.11)	0.094

Supplementary Table 4. Multivariable analysis of progression-free survival and overall survival according to ctDNA clearance at 8 week in the chemotherapy group

Prognostic Factor	Progression-free Survival		Overall Survival	
	Hazard Ratio (95% CI)	P Value	Hazard Ratio (95% CI)	P Value
ctDNA clearance at 8 weeks				
Non-clearance	1		1	
Clearance	0.56 (0.32-1.00)	0.048*	0.59 (0.36-0.99)	0.048*
Age, years (<65 / ≥65)	0.98 (0.96-1.01)	0.168	1.00 (0.96-1.03)	0.850
Sex				
Male	1		1	
Female	0.68 (0.42-1.09)	0.107	1.19 (0.98-1.03)	0.850
Stage				
Localized	1		1	
Metastatic	1.10 (0.66-1.84)	0.706	1.50 (0.91-2.46)	0.111
Chemotherapy regimen				
FOLFIRINOX	1		1	
GnP	1.06 (0.58-1.94)	0.851	1.24 (0.71-2.14)	0.449
Others	2.46 (0.49-12.40)	0.274	1.51 (0.32-7.22)	0.602
Second-line chemotherapy				
No			1	
Yes			0.96 (0.52-1.77)	0.895

Supplementary Figure 1



Time

Supplementary Figure 2

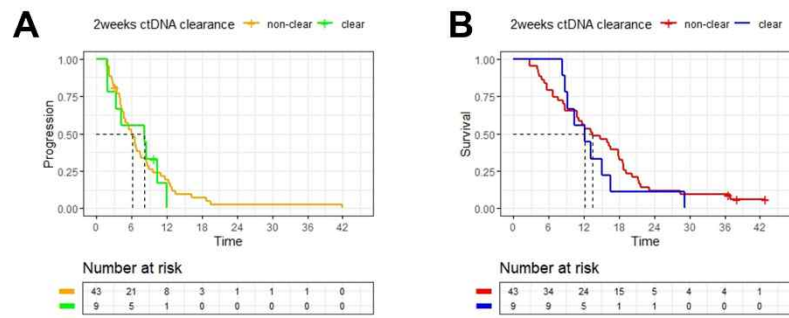


FIGURE LEGENDS

Supplemental Figure 1: Clinical utility of ctDNA monitoring in patients with normal CA19-9 levels.

Supplemental Figure 2: Comparison of survival outcomes according to ctDNA clearance status at week 2. A: Progression-free survival (PFS) and B: Overall survival (OS) curves comparing patients with ctDNA clearance versus without clearance at week 2.