

1 **Supplementary Materials**

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3 **Supplementary Table 1. Baseline clinical characteristics between the groups after matching**

Variables	Total	MIE	RAMIE				P value		
			All phase	Phase I	Phase II	Phase III	MIE vs. RAMIE		
	<i>n</i> = 154	<i>n</i> = 77	<i>n</i> = 77	<i>n</i> = 27	<i>n</i> = 13	<i>n</i> = 37	All phase	Phase I	Phase II & III
Age, years, median	67.5	67	68	69	68	67	0.763	0.619	0.935
[range]	[35-84]	[35-80]	[42-84]	[46-83]	[58-77]	[42-84]			
Gender, <i>n</i> (%)							0.354	0.445	0.57
Male	115 (75%)	55 (71%)	60 (78%)	22 (81%)	10 (77%)	28 (76%)			
Female	39 (25%)	22 (29%)	17 (22%)	5 (19%)	3 (23%)	9 (24%)			

BMI (kg/m ²), <i>n</i> (%)							0.397	0.06	0.547
< 18.5	29 (19%)	14 (18%)	15 (19%)	2 (7%)	3 (23%)	10 (27%)			
18.5-25	110 (71%)	53 (69%)	57 (74%)	25 (93%)	9 (69%)	23 (62%)			
> 25	15 (10%)	10 (13%)	5 (6%)	0 (0%)	1 (8%)	4 (11%)			
CCI, <i>n</i> (%)							0.871	0.509	0.802
0	59 (38%)	32 (42%)	27 (35%)	8 (30%)	3 (23%)	16 (43%)			
1	46 (30%)	22 (28%)	24 (31%)	8 (30%)	5 (38%)	11 (30%)			
2	26 (17%)	12 (16%)	14 (18%)	4 (15%)	4 (31%)	6 (16%)			
> 3	23 (15%)	11	12	7 (26%)	1 (8%)	4 (11%)			

		(14%)	(16%)						
ASA-PS, <i>n</i> (%)							0.462	0.282	0.798
1	36 (23%)	21 (27%)	15 (19%)	4 (15%)	2 (15%)	9 (24%)			
2	86 (56%)	42 (55%)	44 (57%)	15 (56%)	8 (62%)	21 (57%)			
3	32 (21%)	14 (18%)	18 (23%)	8 (30%)	3 (23%)	7 (19%)			
Main tumor location, <i>n</i> (%)							0.803	0.301	0.376
Cervix	3 (2%)	1 (1%)	2 (3%)	0 (0%)	1 (8%)	1 (3%)			
Upper	13 (9%)	5 (6%)	8 (10%)	0 (0%)	2 (15%)	6 (16%)			
Middle	72 (47%)	39 (51%)	33 (43%)	10 (37%)	5 (38%)	18 (49%)			
Lower	55 (36%)	27 (35%)	28 (36%)	14 (52%)	5 (38%)	9 (24%)			

Abdomen	11 (7%)	5 (6%)	6 (8%)	3 (11%)	0 (0%)	3 (8%)			
Clinical depth of tumor invasion, <i>n</i> (%)							0.797	0.582	0.921
cT1	40 (26%)	22 (29%)	18 (23%)	6 (22%)	1 (8%)	11 (30%)			
cT2	21 (14%)	9 (12%)	12 (16%)	6 (22%)	1 (8%)	5 (14%)			
cT3	86 (56%)	42 (55%)	44 (57%)	14 (52%)	11 (85%)	19 (51%)			
cT4	7 (5%)	4 (5%)	3 (4%)	1 (4%)	0 (0%)	2 (5%)			
Clinical lymph node metastasis, <i>n</i> (%)							0.556	0.643	0.507
cN0	41 (27%)	23 (30%)	18 (23%)	8 (30%)	3 (23%)	7 (19%)			
cN1	67	31	36	13	3 (23%)	20			

	(444%)	(40%)	(47%)	(48%)		(54%)			
cN2	42 (27%)	22 (29%)	20 (26%)	5 (19%)	6 (46%)	9 (24%)			
cN3	4 (3%)	1 (1%)	3 (4%)	1 (4%)	1 (8%)	1 (3%)			
Neoadjuvant therapy, <i>n</i> (%)							0.273	0.306	0.257
None	33 (21%)	16 (21%)	17 (22%)	4 (15%)	2 (15%)	11 (30%)			
NAC	112 (72%)	54 (70%)	58 (75%)	23 (85%)	11 (85%)	24 (65%)			
CRT	9 (6%)	7 (9%)	2 (3%)	0 (0%)	0 (0%)	2 (5%)			

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5 ASA-PS: American Society of Anesthesiologists-physical status; BMI: body mass index; CCI: charlson comorbidity index; CRT:

6 chemoradiotherapy; NAC: neoadjuvant chemotherapy.

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