



Baseline characteristics

Characteristic		Group C (n = 42)	Group P (n = 42)	SMD	P - value
Sex	Female	22 (52.38)	19 (45.24)	0.143	0.662
	Male	20 (47.62)	23 (54.76)		
Age (years)		66.81±8.88	65.14±9.15	0.185	0.399
Height (cm)		162.60±7.31	163.64±6.57	0.151	0.492
Weight (kg)		61.87±12.14	62.16±9.98	0.026	0.906
BMI		23.41±3.68	23.14±2.90	0.081	0.711
ASA grade	I	2 (4.76)	2 (4.76)	0.330	0.329
	II	38 (90.48)	34 (80.95)		
	III	2 (4.76)	6 (14.29)		
Tumor size (cm ²)		20.85±27.58	17.92±15.34	0.131	0.550
Tumor location	Right colon	21 (50.00)	20 (47.62)	0.342	0.304
	Left colon	14 (33.33)	19 (45.24)		
	Rectum	7 (16.67)	3 (7.14)		
Hypertension		16 (38.10)	22 (52.38)	0.290	0.273
Diabetes mellitus		5 (11.90)	10 (23.81)	0.315	0.255
Cardiac disease		0 (0.00)	4 (9.52)	0.459	0.124
Respiratory disease		0 (0.00)	1 (2.38)	0.221	1.000
History of stroke		1 (2.38)	3 (7.14)	0.225	0.608
Previous abdominal surgery		18 (42.86)	14 (33.33)	0.197	0.500
Smoking history		5 (11.90)	8 (19.05)	0.199	0.546
Anemia		12 (28.57)	10 (23.81)	0.109	0.804
Hypoproteinemia		5 (11.90)	4 (9.52)	0.077	1.000
Surgical approach	Open	4 (9.52)	4 (9.52)	<0.001	1.000
	Minimally invasive	38 (90.48)	38 (90.48)		
Tumor T stage	Stage I	7 (7.14)	8 (14.29)	0.704	0.055
	Stage II	9 (21.43)	9 (21.43)		
	Stage III	17 (40.48)	24 (57.14)		
	Stage IV	9 (21.43)	1 (2.38)		
Tumor N stage	Stage 0	33 (78.57)	33 (78.57)	0.106	0.890
	Stage I	6 (14.29)	5 (11.90)		
	Stage II	3 (7.14)	4 (9.52)		
Tumor M stage	Stage 0	41 (97.62)	39 (92.86)	0.225	0.608

	Stage I	1 (2.38)	3 (7.14)		
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Postoperative Gastrointestinal Recovery

outcome	Group C (n = 42)	Group P (n = 42)	β (95CI%)	P - value
Primary outcome				
Time to first defecation (h)	91.07±39.02	71.89±24.89	-19.18 (-33.39, -4.98)	0.009
Secondary outcome				
Time to first flatus (h)	59.36±19.23	42.81±18.53	-16.56 (-24.76, -8.36)	0.001
Time to first clear fluid tolerance (h)	40.83±24.30	38.15±31.40	-2.68(-14.86,9.51)	0.663
Time to first full fluid tolerance (h)	96.09±23.67	85.32±21.72	-10.78 (-20.64, -0.91)	0.033
Time to first semi-fluid tolerance (h)	140.50±28.59	124.20±25.78	-16.29 (-28.11, -4.48)	0.008
Time to first ambulation (h)	20.33±7.19	19.75±4.13	-0.58 (-3.13, 1.97)	0.653
Length of hospital stay (h)	216.82±99.20	192.04±31.19	-24.78 (-56.7, 7.14)	0.126

Heart Rate at Different Intraoperative Time Points

HR (beats/min)	Group C (n = 42)	Group P (n = 42)	F	P -value
T1	67.88±11.81	64.26±12.42	-	-
T2	59.24±8.14	56.29±8.35	-	-
T3	61.29±8.19	59.62±9.53	-	-
T4	63.60±9.96	59.90±9.12	-	-
T5	64.02±9.46	60.24±7.84	-	-
GROUP	-	-	11.117	<0.001
TIME	-	-	2.753	0.028
GROUP*TIME	-	-	0.190	0.943

Note: T1–T5 denote at tracheal intubation (T1), at skin incision (T2), 0.5 h after the start of surgery (T3), 1 h after the start of surgery (T4), and at the end of surgery (T5), respectively; HR, heart rate.

Resting NRS Scores at Various Postoperative Time Points

Resting NRS score	Group C (n = 42)	Group P (n = 42)	F	P -value
T1	1.50±1.11	0.90±1.05	-	-
T2	2.26±1.59	1.33±1.00	-	-
T3	0.86±0.90	0.48±0.59	-	-
T4	0.43±0.77	0.19±0.40	-	-
GROUP	-	-	28.150	<0.001
TIME	-	-	17.293	<0.001
GROUP*TIME	-	-	1.927	0.125

Note: T1–T4 denote 0.5 h after awakening, 6 h, 24 h, and 48 h after surgery, respectively.

Dynamic NRS Scores at Various Postoperative Time Points

Dynamic NRS score	Group C (n = 42)	Group P (n = 42)	F	P-value
T1	3.00±1.10	2.43±1.09	-	-
T2	3.62±1.78	2.67±1.07	-	-
T3	2.33±1.16	1.81±0.67	-	-
T4	1.55±0.86	1.26±0.45	-	-
GROUP	-	-	26.933	<0.001
TIME	-	-	19.750	<0.001
GROUP*TIME	-	-	1.317	0.269

Note: T1–T4 denote 0.5 h after awakening, 6 h, 24 h, and 48 h after surgery, respectively.

Postoperative Quality-of-Life Recovery

Indicator	Group C (n = 42)	Group P (n = 41)	P -value
Global health status	75.00 (75.00, 89.58)	83.33 (75.00, 91.67)	0.025
Functional scales			
Physical functioning	93.33 (86.67, 100.00)	100.00 (90.00, 100.00)	0.097
Role functioning	83.33 (70.83, 98.33)	83.33 (83.33, 100.00)	0.059
Cognitive functioning	100 (83.33, 100.00)	100 (83.33, 100.00)	0.451
Emotional functioning	91.67 (81.25, 91.67)	87.5 (83.33, 91.67)	0.532
Social functioning	66.67 (66.67, 83.33)	83.33 (66.67, 83.33)	0.065
Symptom scales			
Nausea and vomiting	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.633
Pain	16.67 (0.00, 16.67)	0.00 (0.00, 16.67)	0.131
Fatigue	11.11 (0.00, 13.89)	11.11 (0.00, 22.22)	0.840
Single items			
Dyspnea	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.968
Insomnia	0.00 (0.00, 33.33)	0.00 (0.00, 33.33)	0.656
Appetite loss	16.67 (0.00, 33.33)	0.00 (0.00, 0.00)	0.007
Constipation	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.320
Diarrhea	33.33 (0.00, 33.33)	0.00 (0.00, 33.33)	0.031
Financial difficulties	0.00 (0.00, 33.33)	0.00 (0.00, 0.00)	0.079

Perioperative complications

Index	Group C (n=42)	Group P (n=42)	P-value
Dizziness	8 (14.29)	4 (9.53)	0.350
Cough	2 (4.76)	3 (7.14)	1.000
Fever	3 (7.14)	2 (4.76)	1.000
Insomnia	9 (21.43)	7 (16.67)	0.578
Pulmonary embolism	0 (0.00)	0 (0.00)	1.000
Arrhythmia	1 (2.38)	0 (0.00)	1.000
Cardiac arrest	0 (0.00)	1 (2.38)	1.000
Incision infection	0 (0.00)	0 (0.00)	1.000
Intra-abdominal infection	1 (2.38)	0 (0.00)	1.000
Postoperative hemorrhage	0 (0.00)	0 (0.00)	1.000

Adverse reactions after acupuncture

Adverse reactions after acupuncture	Broken needle	Needle shedding	Syncope	Bleeding	Infection	Residual needle sensation
Cases	0	0	0	3	0	0