



Supplementary Figure 1. Participant flow diagram.

Supplementary Table 1. Univariate logistic regression analyses to identify the risk factors for postoperative delirium in laparoscopic surgery

Variables	<i>B</i>	S.E.	Wals	<i>P</i> -value	OR	95% CI
Age, years						
> 70 vs. ≤ 70	0.510	0.210	5.876	0.015	1.666	1.103 – 2.516
Sex						
Male vs. Female	0.349	0.223	2.440	0.118	1.417	0.915 – 2.196
Smoking						
Yes vs. No	0.564	0.219	6.631	0.010	1.758	1.144 – 2.700
Drinking						
Yes vs. No	0.297	0.245	1.475	0.225	1.346	0.833 – 2.175
Hypertension						
Yes vs. No	-0.056	0.210	0.072	0.789	0.945	0.626 – 1.427
Diabetes mellitus						
Yes vs. No	0.791	0.297	7.085	0.008	2.206	1.232 – 3.950
Types of CRC						
Rectal cancer vs. Colon cancer	0.284	0.210	1.821	0.177	1.328	0.879 – 2.007
TNM stage						
III vs. I - II	0.013	0.227	0.003	0.954	1.013	0.649 – 1.582
Blood loss, ml						
> 140 vs. ≤ 140	0.140	0.209	0.445	0.505	1.150	0.763 – 1.734

ASA score						
III vs. I - II	0.221	0.276	0.640	0.424	1.247	0.726 – 2.143
University education						
Yes vs. No	-0.045	0.216	0.044	0.833	0.956	0.626 – 1.458
MMSE score						
≤ 26 vs. >26	0.300	0.255	1.381	0.240	1.349	0.819 – 2.223
BMI						
≤ 24 vs. > 24	-0.244	0.373	0.428	0.513	0.783	0.377 – 1.627
Intestinal stoma						
Yes vs. No	0.316	0.210	2.261	0.133	1.371	0.909 – 2.070
Operation time, h						
> 3.7 vs. ≤ 3.7	-0.204	0.217	0.882	0.348	0.816	0.533 – 1.248
Anesthesia time, h						
> 3.9 vs. ≤ 3.9	-0.121	0.212	0.329	0.566	0.886	0.585 – 1.341
Narcotic drugs						
Dexmedetomidine						
Yes vs. No	0.032	0.211	0.023	0.878	1.033	0.683 – 1.561
Propofol						
Yes vs. No	0.159	0.221	0.520	0.471	1.173	0.760 – 1.809
COPD						
Yes vs. No	1.135	0.272	17.393	<0.001	3.112	1.825 – 5.306
Anemia						
Yes vs. No	0.192	0.270	0.504	0.478	1.212	0.713 – 2.058
CRP levels (mg/L)						
Preoperatively						
> 3.7 vs. ≤ 3.7	0.077	0.209	0.137	0.712	1.080	0.717 – 1.629
Postoperative day 1						
> 48 vs. ≤ 48	1.737	0.258	45.272	< 0.001	5.682	3.425 – 9.425

TNM, tumor node metastasis; COPD, chronic obstructive pulmonary disease; CRC, colorectal cancer; CRP, C-reactive protein; BMI, body mass index; MMSE score, Mini-mental State Examination score. Bold values are statistically significant ($P < 0.05$).

Supplementary Table 2. Multivariate logistic regression analyses to identify the risk factors for postoperative delirium in laparoscopic surgery

Variables	<i>B</i>	S.E.	Wals	<i>P</i> -value	OR	95% CI
Age, years						
> 70 vs. ≤ 70	0.637	0.232	7.514	0.006	1.891	1.199 – 2.982
Smoking						
Yes vs. No	0.486	0.241	4.063	0.044	1.626	1.014 – 2.607
Diabetes mellitus						
Yes vs. No	0.966	0.344	7.863	0.005	2.627	1.337 – 5.160
COPD						

Yes vs. No	1.108	0.307	13.021	<0.001	3.028	1.659 – 5.528
CRP levels (mg/L)						
Postoperative day 1						
> 48 vs. ≤ 48	1.865	0.269	48.047	< 0.001	6.459	3.811 – 10.945

COPD, chronic obstructive pulmonary disease; CRP, C-reactive protein. Bold values are statistically significant ($P < 0.05$).