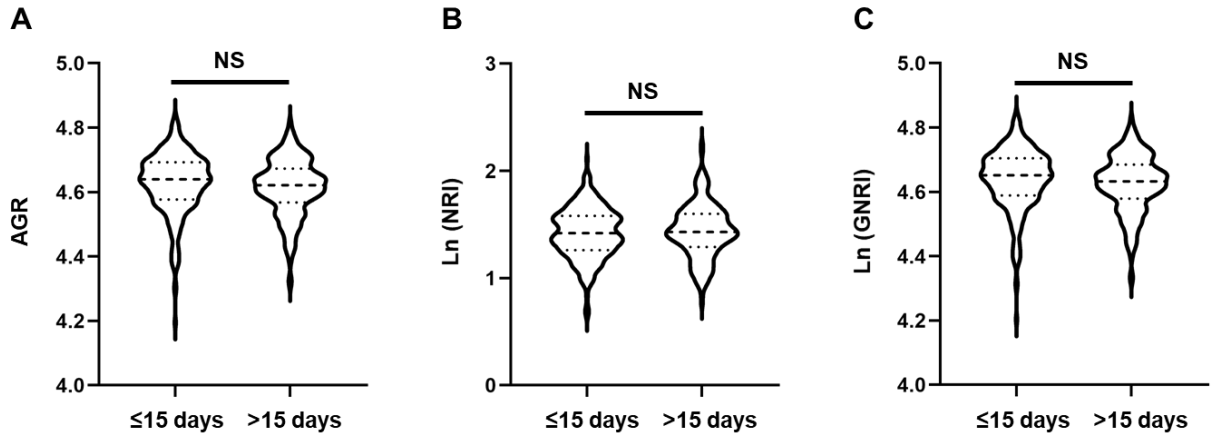

Supplementary Figure 1 The violin plot showcased the distribution of preoperative nutritional and inflammatory markers between two groups: the early rehabilitation cohort and the delayed rehabilitation cohort, using a cut-off point of 15-day postoperative discharge. A: Albumin to Globulin Ratio (AGR); B: Nutritional Risk Index (NRI); C. Geriatric Nutritional Risk Index (GNRI). NRI and GNRI underwent natural logarithmic transformation.

Supplementary Table 1 Calculation formulas for the nutritional and inflammatory markers

Markers	Calculation formula
AGR	Albumin (g/L) / Globulin (g/L)
PNI	Albumin (g/L) + 5 * Lymphocyte (10^9/L)
SII	Platelet (10^9/L) * Neutrophil (10^9/L) / Lymphocyte (10^9/L)
NLR	Neutrophil (10^9/L) / Lymphocyte (10^9/L)
PLR	Platelet (10^9/L) / Lymphocyte (10^9/L)
NRI	1.519 * Albumin (g/L) + 41.7 * (Weight / Ideal weight)
GNRI	1.489 * Albumin (g/L) + 41.7 * (Weight / Ideal weight)

The ideal weight was calculated through the Lorentz equations as follows: Male=height-100-[(height-150)/4]; Female=height-100-[(height-150)/2.5]. AGR: Albumin to globulin ratio; GNRI: Geriatric nutritional risk index; NLR: Neutrophil to lymphocyte ratio; NRI: Nutritional risk index; PLR: Platelet to lymphocyte ratio; PNI: Prognostic nutrition index; SII: Systemic immune-inflammation index.

Supplementary Table 2 Univariable logistic regression analysis between inflammatory-nutritional markers and rehabilitation with a cut-off point of 10-day postoperative discharge

Characteristics	OR	95%CI	*P* value
AGR	0.785	0.317-1.945	0.602
Ln PNI	0.030	0.004-0.232	<0.001[a]

Ln SII	1.606	1.125-2.292	0.009[a]
Ln NLR	1.802	1.142-2.845	0.011[a]
Ln PLR	1.859	1.102-3.135	0.020[a]
Ln NRI	0.019	0.001-0.262	0.003[a]
Ln GNRI	0.019	0.001-0.268	0.003[a]

[a]$P<0.05$. AGR: Albumin to globulin ratio; GNRI: Geriatric nutritional risk index; NLR: Neutrophil to lymphocyte ratio; NRI: Nutritional risk index; OR: Odds ratio; PLR: Platelet to lymphocyte ratio; PNI: Prognostic nutrition index; SII: Systemic immune-inflammation index. Ln PNI, Ln SII, Ln NLR, Ln PLR, Ln NRI and Ln GNRI refers to the natural log-transformed value of the PNI, SII, NLR, PLR, NRI and GNRI respectively.