Table 1. Patient demographics and surgical outcomes [a]

	Control (n = 49)	Continuous dietary counseling (n = 44)	p value
Age (years)	70.7±10.7	70.1±9.4	0.77
Gender Male/Female	32/17	33/11	0.30
ASA I/II/III	14/29/6	12/27/5	0.97
Comorbidity	20 (41)	17 (39)	0.83
BMI (kg/m2)	21.7±3.2	22.9±3.6	0.08
Body weight (kg)	60.6±12.1	58.6±12.4	0.42
Alb (g/dl)	4.2±0.4	4.1±0.4	0.46
T-chol (mg/dl)	197±40	190±38	0.36
TLC (/mm^3)	1722±561	1616±553	0.36
PNI	50.2±5.2	49.0±5.2	0.29
SMI (cm^2/m^2)	45.6±10.1	46.2±10.5	0.76
sarcopenia	11 (22)	12 (27)	0.59
Type of gastrectomy DG/PG/TG	37/5/7	32/7/5	0.68
Preoperative chemotherapy	7 (14)	3 (7)	0.24
Operative procedure Open/MI	2/47	1/43	0.62
Lymph Node Dissection D1+/D2	32/17	30/14	0.76
Stage [b] I/II/III	33/9/7	31/6/7	0.82
Complication (C-D ≥ 2)	13 (27)	8 (18)	0.33
Length of hospital stay (d)	11 (10-15)	11 (10-13)	0.44
Adjuvant chemotherapy	10 (20)	9 (21)	0.99

Table 2. Univariate and multivariate analyses for severe BWL

Factor	Univariate analysis		Multivariate analysis	
	OR (95% CI)	P value	OR (95% CI)	P value
Age (≥ 75 vs. < 75y)	2.1 (0.88-5.16)	0.10	2.34 (0.88-6.57)	0.09
Gender (Female vs. Male)	1.03 (0.43-2.50)	0.95	-	
ASA (3 vs. 1, 2)	0.83 (0.24-2.94)	0.78	-	
Comorbidity (+ vs. -)	1.67 (0.71-3.80)	0.25		
BMI (≥ 25 vs. < 25 kg/m^2)	1.03 (0.44-2.41)	0.93	-	
Preoperative chemotherapy (+ vs. -)	2.63 (0.64-10.9)	0.16	0.90 (0.14-5.70)	0.90
Type of gastrectomy (TG vs. DG)	6.25 (1.28-30.3)	0.012*	7.86 (1.50-64.1)	0.01*
Lymph node dissection (D2 vs. D1+)	0.77 (0.33-1.83)	0.58	-	
Stage (II, III vs. I)	1.14 (0.47-2.74)	0.76	-	
Complication (C-D ≥ 2)	1.49 (0.56-3.97)	0.42	-	
Adjuvant chemotherapy (+ vs. -)	0.52 (0.18-1.45)	0.22		
Continuous dietary counseling	0.24 (0.10-0.58)	0.001*	0.22 (0.08-0.55)	0.001*

BWL, body weight loss; OR, odds ratio; ASA, Anesthetic risk classification of the American Society of Anesthesiologists; BMI, body mass index; TG, total gastrectomy; DG, distal gastrectomy; C-D, Clavien-Dindo classification

Table 3. Univariate and multivariate analyses for severe SML

Factor	Univariate analysis		Multivariate analysis	
	OR (95% CI)	P value	OR (95% CI)	P value
Age (≥ 75 vs. < 75y)	1.37 (0.57-3.32)	0.47	-	
Gender (Female vs. Male)	1.24 (0.51-3.01)	0.63	-	
ASA (3 vs. 1, 2)	0.39 (0.09-1.58)	0.18	0.35 (0.06-1.48)	0.16
Comorbidity (+ vs. -)	1.41 (0.61-3.26)	0.42		
BMI (≥ 25 vs. < 25 kg/m^2)	1.1 (0.44-2.76)	0.83	-	
Preoperative chemotherapy (+ vs. -)	1.86 (0.50-7.75)	0.36		
Type of gastrectomy (TG vs. DG)	16.84 (2.07-136.8)	<0.001*	19.0 (2.93-387.4)	<0.001*
Lymph node dissection (D2 vs. D1+)	1.68 (0.70-4.00)	0.23	-	
Stage (II, III vs. I)	2.07 (0.84-5.04)	0.11	1.34 (0.46-3.80)	0.58
Complication (C-D ≥ 2)	1.07 (0.40-2.84)	0.89	-	
Adjuvant chemotherapy (+ vs. -)	1.06 (0.38-2.92)	0.91		
Continuous dietary counseling	0.32 (0.13-0.74)	0.008*	0.27 (0.10-0.69)	0.006*

SML, skeletal muscle loss; OR, odds ratio; ASA, Anesthetic risk classification of the American Society of Anesthesiologists; BMI, body mass index; TG, total gastrectomy; DG, distal gastrectomy; C-D, Clavien-Dindo classification

Table 4. Changes in laboratory parameters from preoperative values to POM12

	Control (n = 49)	Continuous dietary counseling (n = 44)	*p* value
Hemoglobin (g/dl)	-0.88±1.73	-0.46±1.37	0.20
Platelet count (x 10^4/mm^3)	-1.77±5.05	-3.71±7.54	0.15
Lymphocyte count (/mm^3)	-189.9±487.5	-37.6±411.8	0.11
CRP (mg/dl)	0.02±0.73	0.03±0.75	0.96
Total protein (g/dl)	-0.24±0.48	-0.14±0.54	0.34
Albumin (g/dl)	-0.19±0.39	-0.15±0.33	0.62
Total Cholesterol (mg/dl)	-24.1±39.6	-4.0±37.9	0.02*

Data are presented as mean ± standard deviation
Statistical significance defined as *p < 0.05
CRP C-reactive protein