

**S7 Table.** The association between metabolically healthy phenotypes (defined by BMI and WC categories) and GI cancer type among age > 60 years

	Esophageal cancer		Gastric cancer		Colorectal cancer		Biliary tract cancer		Liver cancer		Pancreatic cancer	
	Case	Multiple-adjusted	Case	Multiple-adjusted	Case	Multiple-adjusted	Case	Multiple-adjusted	Case	Multiple-adjusted	Case	Multiple-adjusted
<b>BMI category</b>												
MHNW	8	Ref	23	Ref	24	Ref	9	Ref	18	Ref	10	Ref
MUNW	48	1.13 (0.53-2.39)	126	0.98 (0.63-1.53)	204	1.59 (1.04-2.44)	24	0.46 (0.21-1.01)	88	0.92 (0.55-1.53)	45	0.78 (0.39-1.55)
MHO	1	1.50 (0.19-12.01)	3	1.48 (0.45-4.94)	5	2.48 (0.95-6.52)	0	-	3	2.61 (0.76-8.91)	0	-
MUO	12	1.11 (0.45-2.74)	38	1.01 (0.60-1.70)	50	1.48 (0.90-2.42)	3	0.20 (0.05-0.76)	33	1.17 (0.66-2.10)	16	0.96 (0.43-2.14)
<b>WC category</b>												
MHNW	9	Ref	17	Ref	14	Ref	8	Ref	10	Ref	8	Ref
MUNW	30	0.77 (0.36-1.63)	86	1.13 (0.67-1.90)	109	1.84 (1.05-3.21)	14	0.38 (0.17-1.01)	49	1.13 (0.57-2.24)	26	0.70 (0.32-1.55)
MHO	0	-	9	1.10 (0.49-2.46)	15	2.38 (1.15-4.94)	1	0.28 (0.04-2.29)	11	2.26 (0.96-5.36)	2	0.52 (0.11-2.45)
MUO	30	0.72 (0.34-1.53)	78	0.85 (0.50-1.44)	145	2.19 (1.26-3.80)	13	0.31 (0.13-1.03)	72	1.37 (0.70-2.67)	35	0.80 (0.37-1.75)

Multivariable model adjusted for age, sex, educational level, drinking, smoking, physical exercise, family history of cancer, salt intake, high-sensitive C-reactive protein, and alanine transaminase. Model for colorectal cancer was additionally adjusted for high fat diet. Model for biliary tract cancer was additionally adjusted for gallstone. Model for liver cancer was additionally adjusted for HBsAg. Model for pancreatic cancer was additionally adjusted for history of chronic pancreatitis. BMI, body mass index; GI, gastrointestinal; MHNW, metabolic healthy normal-weight; MHO, metabolic healthy obesity; MUNW, metabolic unhealthy normal-weight; MUO, metabolic unhealthy obesity; WC, waist circumference.