

Supplementary Table S1. The components of MS according to different BMI status

Variable	Normal BMI (n = 309)	Overweight (n = 429)	Obesity (n = 280)	P
Gender Male	104	123	73	
Female	205	306	207	0.117
Age	51.20 ± 6.15	51.59 ± 5.18	52.02 ± 4.99	0.190
BMI (kg/m ²)	22.21 ± 1.30	25.98 ± 1.11*	30.60 ± 2.40* [#]	0.000
Serum iodine (µg/L)	81.74 (69.83–91.33)	78.47 (69.65–90.09)	79.63 (69.58–91.10)	0.361
TG (mg/dL)	116.18 ± 67.94	146.84 ± 115.80*	184.60 ± 135.22* [#]	0.000
TC (mg/dL)	194.36 ± 36.88	201.23 ± 41.01*	205.54 ± 40.25*	0.002
HDL-c (mg/dL)	63.18 ± 13.28	59.40 ± 12.43*	55.49 ± 12.43* [#]	0.000
LDL-c (mg/dL)	116.20 ± 33.44	124.24 ± 33.83*	128.35 ± 33.21*	0.000
FBG (mg/dL)	82.03 ± 24.68	86.59 ± 28.70*	88.07 ± 27.85*	0.018
SBP (mmHg)	121.81 ± 18.72	125.32 ± 16.24*	132.21 ± 18.45* [#]	0.000
DBP (mmHg)	81.15 ± 12.63	84.15 ± 16.35*	88.67 ± 15.71* [#]	0.000
WC (cm)	80.96 ± 6.14	90.33 ± 5.97*	101.31 ± 7.48* [#]	0.000
MS, n (%)	29 (9.38)	146* (34.03)	140* [#] (50)	0.000

Note. *Compared with the normal BMI group, [#]compared with the overweight group.

Supplementary Table S2. The risk of MS according to the BMI status

Variable	Crude OR (95% CI)	P	Adjusted OR (95% CI)	P
Normal BMI	Reference		Reference	
BMI Overweight	4.98 (3.23–7.66)	0.000	4.98 (3.23–7.69)	0.000
Obesity	9.65 (6.16–15.11)	0.000	9.55 (6.07–15.02)	0.000

Note. Adjusted OR: adjusted by age and gender.

Supplementary Table S3. Evaluation of the impact factors of TSH by multiply linear regression

Variable	β	S. E	t	P
BMI	0.479	0.194	2.469	0.014
Gender	0.052	0.024	2.172	0.030
FT ₄	-0.213	0.030	-7.074	0.000
TPOAb	1.987	0.383	5.191	0.000

Supplementary Table S4. The risk of TPOAb according to the BMI status

Variable	Crude OR (95% CI)	P	Adjusted OR (95% CI)	P
BMI Normal BMI	Reference		Reference	
Overweight	0.99 (0.57–1.71)	0.970	0.99 (0.56–1.72)	0.973
Obesity	1.86 (1.08–3.19)	0.023	1.87 (1.08–3.24)	0.024

Note. Adjusted OR: adjusted by age and gender.

Supplementary Table S5. The risks of Thyroid Diseases according to Metabolic status or BMI status

Variable		Crude OR (95% CI)	P	Adjusted OR (95% CI)	P
SCH					
BMI	Normal BMI	Reference		Reference	
	Overweight	1.55 (0.99–2.42)	0.055	1.44 (0.91–2.27)	0.112
	Obesity	2.18 (1.36–3.49)	0.001	1.98 (1.23–3.21)	0.005
MS	MS (-)	Reference		Reference	
	MS (+)	1.08 (0.75–1.56)	0.656	0.99 (0.68–1.44)	0.972
TAI					
BMI	Normal BMI	Reference		Reference	
	Overweight	0.89 (0.56–1.39)	0.612	0.85 (0.53–1.35)	0.499
	Obesity	1.73 (1.10–2.72)	0.017	1.66 (1.04–2.64)	0.032
MS	MS (-)	Reference		Reference	
	MS (+)	0.73 (0.48–1.09)	0.133	0.69 (0.45–1.06)	0.092

Note. Adjusted OR: adjusted by age and gender.

Supplementary Table S6. The risks of thyroid diseases according to the BMI status in MS (-) subjects

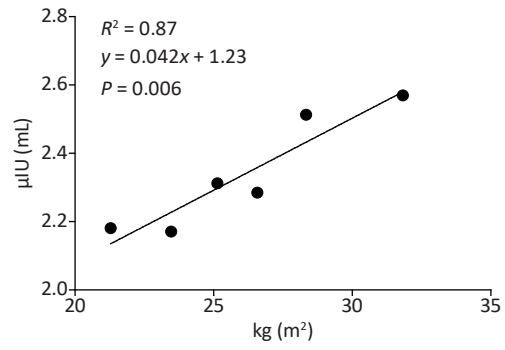
Variable		Crude OR (95% CI)	P	Adjusted OR (95% CI)	P
SCH					
BMI	Normal BMI	Reference		Reference	
	Overweight	1.64 (1.00–2.69)	0.050	1.54 (0.93–2.57)	0.091
	Obesity	2.34 (1.32–4.15)	0.004	1.92 (1.06–3.46)	0.029
TAI					
BMI	Normal BMI	Reference		Reference	
	Overweight	1.02 (0.62–1.67)	0.937	0.98 (0.59–1.64)	0.965
	Obesity	2.24 (1.31–3.81)	0.003	1.99 (1.15–3.46)	0.013

Note: Adjusted OR: adjusted by age and gender.

Supplementary Table S7. The risks of thyroid diseases according to the BMI status in MS (+) subjects

Variable		Crude OR (95% CI)	P	Adjusted OR (95% CI)	p
SCH					
BMI	Normal BMI	Reference		Reference	
	Overweight	1.53 (0.42–5.51)	0.509	1.54 (0.42–5.58)	0.508
	Obesity	2.16 (0.61–7.66)	0.231	2.34 (0.65–8.41)	0.189
TAI					
BMI	Normal BMI	Reference		Reference	
	Overweight	0.77 (0.20–2.94)	0.709	0.77 (0.20–2.95)	0.710
	Obesity	1.52 (0.42–5.51)	0.516	1.62 (0.44–5.87)	0.462

Note. Adjusted OR: adjusted by age and gender.



Supplementary Figure S1. The correlation between BMI and TSH.