

Elevated triglyceride-glucose index and its combination with anthropometric indices as indicators of the risk of new-onset transient ischemic attack: A prospective cohort study

Supplementary Table 1. Definitions of components used in the UK Biobank study of TyG and its combination with anthropometric indicators	2
Supplementary Table 2. Covariates multicollinearity test results in Model 2	3
Supplementary Table 3. Covariates multicollinearity test results in Model 3	4
Supplementary Table 4. Association between TyG and its combinations with anthropometric indices and the risk of TIA. (Fine-Gray Competing Risk Model Analysis)	5
Supplementary Table 5. Post hoc analysis of TyG-WHtR, VAI, and LAP indices with TIA risk.....	7
Supplementary Table 6. ROC curve analysis of TyG and its combination with anthropometric indices in predicting TIA risk and comparison with TyG alone.	8
Supplementary Table 7. Associations between TyG-WC and TIA in different subgroups.	9
Supplementary Table 8. Association between TyG and combined anthropometric indices with the risk of TIA. (based on MICE-imputed data).	11
Supplementary Table 9. Association between TyG and combined anthropometric indices with the risk of TIA. (excluded CVD diseases).....	13
Supplementary Table 10. Association between TyG and combined anthropometric indices with the risk of TIA. (2-year landmark analysis).....	15

Supplementary Table 1. Definitions of components used in the UK Biobank study of TyG and its combination with anthropometric indicators.

Indexes	Formulas
TyG	$\text{Ln (fasting TG [mg/dL]} \times \text{FBG [mg/dL]} / 2)$
BMI	$\text{Weight (kg)} / \text{Height}^2[\text{m}]$
WHtR	$\text{WC (cm)} / \text{Height (cm)}$
TyG-WC	$\text{TyG} \times \text{WC (cm)}$
TyG-BMI	$\text{TyG} \times \text{BMI (kg/m}^2)$
TyG-WHtR	$\text{TyG} \times (\text{WC [cm]} / \text{Height [cm]})$
VAI (Male)	$\text{WC (cm)} / (39.68 + (1.88 \times \text{BMI [kg/m}^2])) \times (\text{TG [mmol/L]} / 1.03) \times (1.31 / \text{HDL-C [mmol/L]})$
VAI (Female)	$\text{WC (cm)} / (36.58 + (1.89 \times \text{BMI [kg/m}^2])) \times (\text{TG [mmol/L]} / 0.81) \times (1.52 / \text{HDL-C [mmol/L]})$
LAP (Male)	$\text{LAP} = (\text{WC [cm]} - 65) \times \text{TG (mmol/L)}$
LAP (Female)	$\text{LAP} = (\text{WC [cm]} - 58) \times \text{TG (mmol/L)}$

Note: TyG, triglyceride-glucose index; TG, triglycerides; FBG, fasting blood glucose; BMI, body mass index; WHtR, waist-to-height-ratio; WC, waist circumferences; VAI, visceral adiposity index; HDL-C, high-density lipoprotein cholesterol; LAP, lipid accumulation product.

Supplementary Table 2. Covariates multicollinearity test results in Model 2.

VIF	TyG	TyG-WC	TyG-BMI	TyG-WHtR	VAI	LAP
Age	1.209	1.208	1.201	1.215	1.200	1.207
Sex	1.219	1.403	1.197	1.232	1.188	1.245
Ethnicity	1.040	1.040	1.040	1.040	1.040	1.040
TDI	1.098	1.101	1.100	1.102	1.098	1.099
Education	1.135	1.138	1.141	1.141	1.136	1.138
Income	1.326	1.324	1.324	1.328	1.328	1.325
Non-HDL-C	1.092	1.063	1.062	1.065	1.075	1.080
Lipid-lowering medication	1.264	1.271	1.273	1.275	1.265	1.267

Note: VIF, variance inflation factor; TyG, triglyceride-glucose index; TG, triglycerides; BMI, body mass index; WHtR, waist-to-height-ratio; WC, waist circumferences; VAI, visceral adiposity index; LAP, lipid accumulation product; TDI, Townsend deprivation index.

Supplementary Table 3. Covariates multicollinearity test results in Model 3.

VIF	TyG	TyG-WC	TyG-BMI	TyG-WHtR	VAI	LAP
Age	1.277	1.275	1.272	1.279	1.272	1.275
Sex	1.247	1.423	1.224	1.257	1.218	1.269
Ethnicity	1.053	1.053	1.053	1.053	1.053	1.053
TDI	1.122	1.124	1.124	1.125	1.122	1.123
Education	1.143	1.145	1.148	1.148	1.144	1.145
Income	1.339	1.338	1.338	1.341	1.341	1.339
Non-HDL-C	1.097	1.067	1.066	1.069	1.079	1.084
Lipid-lowering medication	1.277	1.284	1.286	1.287	1.278	1.281
Smoking status	1.058	1.057	1.056	1.057	1.059	1.058
Alcohol drinking	1.050	1.050	1.050	1.051	1.053	1.050
Diabetes	1.031	1.028	1.027	1.028	1.023	1.024
Hypertension	1.104	1.118	1.123	1.121	1.097	1.112
Cancer	1.018	1.018	1.018	1.018	1.018	1.018

Note: VIF, variance inflation factor; TyG, triglyceride-glucose index; TG, triglycerides; BMI, body mass index; WHtR, waist-to-height-ratio; WC, waist circumferences; VAI, visceral adiposity index; LAP, lipid accumulation product; TDI, Townsend deprivation index.

Supplementary Table 4. Association between TyG and its combinations with anthropometric indices and the risk of TIA. (Fine-Gray Competing Risk Model Analysis)

TyG	Standard error(SE)	Z-statistic	sHR (95%CI)	P value
Q1 (Reference)				
Q2	0.046	1.700	1.08(1.00, 1.19)	0.069
Q3	0.046	1.940	1.10(1.01, 1.20)	0.043*
Q4	0.046	3.930	1.21(1.11, 1.32)	<0.001***
TyG-WC				
Q1 (Reference)				
Q2	0.049	2.420	1.13(1.02, 1.24)	0.015*
Q3	0.049	3.610	1.20(1.09, 1.32)	<0.001***
Q4	0.051	4.950	1.28(1.16, 1.42)	<0.001***
TyG-BMI				
Q1 (Reference)				
Q2	0.046	1.690	1.08(0.99, 1.19)	0.071
Q3	0.046	3.610	1.18(1.08, 1.29)	<0.001***
Q4	0.046	4.160	1.21(1.11, 1.33)	<0.001***
TyGWHtR				
Q1 (Reference)				
Q2	0.049	2.670	1.14(1.04, 1.26)	0.007**
Q3	0.049	4.240	1.23(1.12, 1.35)	<0.001***
Q4	0.049	5.210	1.29(1.17,1.42)	<0.001***
VAI				
Q1 (Reference)				

Q2	0.046	3.740	1.19(1.09, 1.30)	<0.001***
Q3	0.045	3.950	1.20(1.10, 1.31)	<0.001***
Q4	0.044	6.710	1.35(1.24, 1.47)	<0.001***
LAP				
Q1 (Reference)				
Q2	0.048	2.560	1.13(1.03, 1.24)	0.011*
Q3	0.047	4.590	1.24(1.13, 1.36)	<0.001***
Q4	0.047	5.400	1.29(1.18, 1.42)	<0.001***

Abbreviation: TIA, transient ischemic attacks; BMI, body mass index; WC, waist circumferences; WHtR, waist-to-height-ratio; TyG, triglyceride-glucose index; VAI, visceral adiposity index; LAP, lipid accumulation product; sHR, subdistribution hazard ratio; CI, confidence interval; Q, Quartile; TDI, Townsend deprivation index; PAF, population attributable fraction.

TIA = 0: No transient ischemic attack (TIA) meeting the study-defined criteria occurred, and no death occurred. The follow-up was conducted until the preset end time of the study (this is a censored status).

TIA = 1: A TIA meeting the study-defined criteria occurred (regardless of whether death occurred after the TIA; as long as TIA was the first-occurring event, it was classified into this category, and this is an event of interest).

TIA = 2: No TIA occurred, but follow-up was terminated early due to death (death is a competing risk event, which "competed" for the occurrence opportunity of TIA).

Model adjusted for age, sex, ethnicity, TDI, education, income, Non-HDL-C, Lipid-lowering medication, smoking status, alcohol drinking, hypertension, diabetes and cancer;

Bold values indicate significance, with a P value < 0.05. *P < 0.05, **P < 0.01, ***P < 0.001

Supplementary Table 5. Post hoc analysis of TyG-WHtR, VAI, and LAP indices with TIA risk.

	(A) TyG-WHtR		(B) VAI		(C) LAP	
Comparison group	HR(95%CI)	P value	HR(95%CI)	P value	HR(95%CI)	P value
Q2 vs Q1	1.14(1.02, 1.30)	0.021*	1.19(1.05, 1.34)	0.001**	1.13(1.02, 1.31)	0.028*
Q3 vs Q1	1.23(1.09, 1.40)	<0.001***	1.20(1.06, 1.35)	<0.001***	1.24(1.10, 1.41)	<0.001***
Q4 vs Q1	1.29(1.13, 1.47)	<0.001***	1.35(1.20, 1.52)	<0.001***	1.30(1.14, 1.47)	<0.001***
Q3 vs Q2	1.11(1.00, 1.25)	0.042*	1.01(0.90, 1.12)	0.983	1.10(0.99, 1.23)	0.132
Q4 vs Q2	1.13(1.01, 1.26)	0.015*	1.14(1.02, 1.26)	0.011*	1.15(1.03, 1.28)	0.007**
Q4 vs Q3	1.05(0.96, 1.16)	0.895	1.13(1.01, 1.25)	0.016*	1.04(0.95, 1.15)	0.925

Abbreviation: TIA, transient ischemic attacks; BMI, body mass index; WC, waist circumferences; WHtR, waist-to-height-ratio; TyG, triglyceride-glucose index; VAI, visceral adiposity index; LAP, lipid accumulation product; HR, hazard ratio; CI, confidence interval; Q, Quartile; TDI, Townsend deprivation index; PAF, population attributable fraction;

Model adjusted for age, sex, ethnicity, TDI, education, income, Non-HDL-C, Lipid-lowering medication, smoking status, alcohol drinking, hypertension, diabetes and cancer;

Multiple testing correction: Bonferroni method (applied to 6 comparisons);

Bold values indicate significance, with a P value < 0.05. *P < 0.05, **P < 0.01, ***P < 0.001

Supplementary Table 6. ROC curve analysis of TyG and its combination with anthropometric indices in predicting TIA risk and comparison with TyG alone.

(A)	Standard Error (SE)	Z-statistic	AUC (95%CI)	P value (Hypothesis: AUC=0.5)
TyG	0.004	21.389	0.588(0.586, 0.589)	<0.001***
TyG-WC	0.004	46.140	0.673(0.672, 0.675)	<0.001***
TyG-BMI	0.004	22.573	0.590(0.589, 0.592)	<0.001***
TyG-WHtR	0.004	48.077	0.678(0.676, 0.679)	<0.001***
VAI	0.004	20.488	0.582(0.581, 0.584)	<0.001***
LAP	0.004	24.404	0.595(0.593, 0.597)	<0.001***
(B)	Standard Error (SE)	Z-statistic	AUC difference (95%CI)	P value
TyG (Reference)				
TyG-WC	0.003	25.614	0.086(0.079, 0.092)	<0.001***
TyG-BMI	0.004	0.766	0.003(-0.004, 0.010)	0.444
TyG-WHtR	0.003	28.304	0.090(0.084, 0.096)	<0.001***
VAI	0.002	2.792	0.005(0.002, 0.009)	0.005**
LAP	0.002	3.100	0.007(0.003, 0.012)	0.002**

Abbreviation: TIA, transient ischemic attacks; BMI, body mass index; WC, waist circumferences; WHtR, waist-to-height-ratio; TyG, triglyceride-glucose index; VAI, visceral adiposity index; LAP, lipid accumulation product; AUC, area under curve; CI, confidence interval;

(A) AUC values and 95%CI under ROC curves for TyG and its combinations with anthropometric indices.

(B) Comparative efficacy of TyG combined with anthropometric indices for TIA risk prediction vs. TyG alone.

SE of area under AUC was calculated using the method proposed by DeLong et al. (1988), which is specifically designed for estimating the variability of AUC in correlated ROC analyses.

95%CI of AUC was computed via the binomial exact method, a robust approach for constructing confidence intervals for proportions.

Bold values indicate significance, with a P value < 0.05. *P < 0.05, **P < 0.01, ***P < 0.001

Supplementary Table 7. Associations between TyG-WC and TIA in different subgroups.

TyG-WC	Q1	Q2 HR (95%CI)	Q3 HR (95%CI)	Q4 HR (95%CI)	P for interaction
Age					<0.001***
<= 55 years	1(reference)	1.15(0.94, 1.42)	1.48(1.21, 1.82)	1.81(1.47, 2.22)	
> 55 years	1(reference)	1.13(1.02, 1.25)	1.17(1.06, 1.30)	1.27(1.14, 1.41)	
Sex					0.820
Female	1(reference)	1.11(1.00, 1.23)	1.15(1.03, 1.30)	1.36(1.21, 1.54)	
Male	1(reference)	1.13(0.93, 1.37)	1.23(1.02, 1.48)	1.35(1.12, 1.62)	
Smoking status					0.338
Current smoker	1(reference)	1.17(0.89, 1.54)	1.41(1.08, 1.85)	1.45(1.28, 1.64)	
Former smoker	1(reference)	1.12(0.96, 1.31)	1.08(0.92, 1.26)	1.20(1.02, 1.41)	
Never smoker	1(reference)	1.10(0.98, 1.25)	1.24(1.10, 1.40)	1.44(1.10, 1.89)	
Alcohol consumption					0.282
Current drinker	1(reference)	1.12(1.02, 1.23)	1.17(1.07, 1.29)	1.32(1.20, 1.46)	
Former drinker	1(reference)	1.41(0.90, 2.22)	1.64(1.06, 2.55)	1.78(1.16, 2.74)	
Never drinker	1(reference)	0.97(0.65, 1.45)	1.37(0.94, 1.99)	1.44(0.99, 2.09)	
Hypertension					0.184
Yes	1(reference)	1.11(0.97, 1.26)	1.26(1.10, 1.45)	1.34(1.16, 1.55)	
No	1(reference)	1.10(0.97, 1.25)	1.12(0.98, 1.29)	1.21(1.06, 1.39)	
Diabetes					0.042*
Yes	1(reference)	1.38(0.95, 2.02)	1.58(1.09, 2.06)	1.93(1.36, 2.53)	
No	1(reference)	1.11(1.01, 1.23)	1.15(1.04, 1.28)	1.24(1.12, 1.38)	

CVD					0.308
Yes	1(reference)	1.13(0.97, 1.35)	1.15(0.97, 1.35)	1.17(0.98,1.37)	
No	1(reference)	1.02(0.91, 1.15)	1.07(0.95, 1.21)	1.15(1.01, 1.31)	

Abbreviation: TIA, transient ischemic attacks; TyG, triglyceride-glucose index; WHtR, waist-to-height-ratio; HR, hazard ratio; CI, confidence interval; Q, Quartile; TDI, Townsend deprivation index;

Model adjusted for age, sex, ethnicity, TDI, education, income, Non-HDL-C, Lipid-lowering medication, smoking status, alcohol drinking, hypertension, diabetes and cancer;

Bold values indicate significance, with a P value < 0.05. *P < 0.05, **P < 0.01, ***P < 0.001

Supplementary Table 8. Association between TyG and combined anthropometric indices with the risk of TIA. (based on MICE-imputed data)

	Events (%)	Model 1 HR (95%CI)	<i>P</i> value	Model 2 HR (95%CI)	<i>P</i> value	Model 3 HR (95%CI)	<i>P</i> value	PAF% (95%CI)
TyG								9.88(3.23, 16.79)
Q1	927(18.2)	1(reference)		1(reference)		1(reference)		
Q2	1,242(24.4)	1.12(1.03, 1.22)	0.011*	1.11(1.02, 1.21)	0.014*	1.09(1.01, 1.19)	0.030*	
Q3	1,351(26.6)	1.14(1.05, 1.24)	0.003**	1.12(1.03, 1.22)	0.008**	1.10(1.01, 1.20)	0.025*	
Q4	1,563(30.7)	1.29(1.19, 1.40)	< 0.001***	1.25(1.15, 1.36)	< 0.001***	1.21(1.11, 1.32)	< 0.001***	
P for trend		< 0.001***		< 0.001***		< 0.001***		
TyG-WC								15.10(7.72, 22.78)
Q1	842(16.6)	1(reference)		1(reference)		1(reference)		
Q2	1,183(23.3)	1.15(1.05, 1.26)	0.001**	1.15(1.05, 1.26)	0.003**	1.13(1.03, 1.24)	0.009**	
Q3	1,401(27.6)	1.25(1.15, 1.37)	< 0.001***	1.23(1.12, 1.35)	< 0.001***	1.20(1.10, 1.32)	< 0.001***	
Q4	1,657(32.6)	1.44(1.32, 1.58)	< 0.001***	1.35(1.23, 1.48)	< 0.001***	1.31(1.19, 1.44)	< 0.001***	
P for trend		< 0.001***		< 0.001***		< 0.001***		
TyG-BMI								11.92(5.29, 18.94)
Q1	922(18.1)	1(reference)		1(reference)		1(reference)		
Q2	1,215(23.9)	1.11(1.01, 1.20)	0.021*	1.09(1.00, 1.19)	0.042*	1.08(1.00, 1.18)	0.067	
Q3	1,439(28.3)	1.25(1.15, 1.36)	< 0.001***	1.21(1.11, 1.32)	< 0.001***	1.19(1.09, 1.29)	< 0.001***	
Q4	1,507(29.6)	1.35(1.24, 1.47)	< 0.001***	1.26(1.16, 1.37)	< 0.001***	1.23(1.13, 1.34)	< 0.001***	
P for trend		< 0.001***		< 0.001***		< 0.001***		
TyG-WHtR								15.81(8.49, 23.39)
Q1	804(15.8)	1(reference)		1(reference)		1(reference)		
Q2	1,186(23.3)	1.16(1.06, 1.27)	0.001**	1.15(1.05, 1.26)	0.002**	1.14(1.04, 1.25)	0.006*	

Q3	1,449(28.5)	1.30(1.19, 1.42)	< 0.001***	1.26(1.15, 1.38)	< 0.001***	1.23(1.13, 1.35)	< 0.001***	
Q4	1,644(32.3)	1.45(1.33, 1.58)	< 0.001***	1.35(1.23, 1.47)	< 0.001***	1.30(1.19, 1.43)	< 0.001***	
P for trend		< 0.001***		< 0.001***		< 0.001***		
VAI								15.87(8.02, 23.88)
Q1	712(14.0)	1(reference)		1(reference)		1(reference)		
Q2	1,425(28.0)	1.16(1.06, 1.27)	0.001**	1.14(1.04, 1.25)	0.004**	1.13(1.03, 1.24)	0.008**	
Q3	1,270(25.0)	1.24(1.13, 1.36)	< 0.001***	1.20(1.10, 1.32)	< 0.001***	1.18(1.08, 1.30)	< 0.001***	
Q4	1,676(33.0)	1.42(1.30, 1.55)	< 0.001***	1.36(1.24, 1.49)	< 0.001***	1.32(1.21, 1.44)	< 0.001***	
P for trend		< 0.001***		< 0.001***		< 0.001***		
LAP								15.62(8.53, 22.97)
Q1	853(16.8)	1(reference)		1(reference)		1(reference)		
Q2	1,211(23.8)	1.16(1.06, 1.27)	< 0.001***	1.15(1.05, 1.26)	0.002**	1.14(1.04, 1.24)	0.005**	
Q3	1,437(28.3)	1.28(1.17, 1.40)	< 0.001***	1.25(1.14, 1.36)	< 0.001***	1.22(1.12, 1.34)	< 0.001***	
Q4	1,582(31.1)	1.41(1.30, 1.54)	< 0.001***	1.34(1.23, 1.47)	< 0.001***	1.30(1.19, 1.42)	< 0.001***	
P for trend		< 0.001***		< 0.001***		< 0.001***		

Abbreviation: TIA, transient ischemic attacks; BMI, body mass index; WC, waist circumferences; WHtR, waist-to-height-ratio; TyG, triglyceride-glucose index; VAI, visceral adiposity index; LAP, lipid accumulation product; HR, hazard ratio; CI, confidence interval; Q, Quartile; TDI, Townsend deprivation index; PAF, population attributable fraction;

Model 1: adjusted for age, sex, ethnicity;

Model 2: adjusted for age, sex, ethnicity, TDI, education, income, Non-HDL-C, Lipid-lowering medication;

Model 3: adjusted for age, sex, ethnicity, TDI, education, income, Non-HDL-C, Lipid-lowering medication, smoking status, alcohol drinking, hypertension, diabetes and cancer;

PAF was used to evaluate the contribution of surrogate insulin resistance indexes (TyG, TyG-WC, TyG-BMI, TyG-WHtR, VAI, LAP) to the population disease burden (TIA), and the Q1 group was selected as the baseline of the model.

Bold values indicate significance, with a P value < 0.05. *P < 0.05, **P < 0.01, ***P < 0.001

Supplementary Table 9. Association between TyG and combined anthropometric indices with the risk of TIA. (excluded CVD diseases)

	Events (%)	Model 1 HR (95%CI)	P value	Model 2 HR (95%CI)	P value	Model 3 HR (95%CI)	P value	PAF% (95%CI)
TyG								9.64 (2.31,17.65)
Q1	499(20.4)	1(reference)		1(reference)		1(reference)		
Q2	646(26.4)	1.11(1.00, 1.25)	0.048*	1.08(0.97, 1.22)	0.185	1.05(0.95, 1.19)	0.405	
Q3	654(26.8)	1.20(1.07, 1.35)	0.002**	1.18(1.05, 1.33)	0.006**	1.16(1.03, 1.31)	0.012**	
Q4	645(26.4)	1.27(1.13, 1.43)	< 0.001***	1.22(1.08, 1.38)	< 0.001***	1.17(1.05, 1.32)	0.009**	
P for trend		< 0.001***		0.005**		0.020**		
TyG-WC								5.79(0.68, 13.55)
Q1	554(22.7)	1(reference)		1(reference)		1(reference)		
Q2	637(26.1)	1.06(0.95, 1.19)	0.350	1.04(0.93, 1.17)	0.340	1.02(0.91, 1.15)	0.502	
Q3	663(27.1)	1.14(1.01, 1.29)	0.025*	1.10(1.00, 1.27)	0.102	1.08(0.96, 1.23)	0.229	
Q4	590(24.1)	1.26(1.11, 1.43)	< 0.001***	1.22(1.07, 1.38)	0.001**	1.17(1.04, 1.34)	0.021*	
P for trend		< 0.001***		0.012*		0.118		
TyG-BMI								5.78(0.23, 12.57)
Q1	596(24.4)	1(reference)		1(reference)		1(reference)		
Q2	659(27.0)	1.06(0.95, 1.19)	0.258	1.04(0.93, 1.17)	0.455	1.03(0.92, 1.14)	0.588	
Q3	668(27.3)	1.17(1.05, 1.30)	0.009**	1.14(1.02, 1.27)	0.035*	1.11(1.00, 1.24)	0.102	
Q4	521(21.3)	1.20(1.07, 1.35)	< 0.001***	1.16(1.03, 1.32)	0.012*	1.13(1.01, 1.26)	0.044*	
P for trend		< 0.001***		0.017*		0.128		
TyG-WHtR								8.51(1.04, 16.42)
Q1	534(21.8)	1(reference)		1(reference)		1(reference)		
Q2	663(27.1)	1.14(1.02, 1.27)	0.025*	1.12(1.00, 1.25)	0.052	1.10(0.99, 1.24)	0.108	

Q3	677(27.7)	1.19(1.06, 1.34)	0.003**	1.16(1.03, 1.29)	0.021*	1.13(1.02, 1.26)	0.043*	
Q4	570(23.3)	1.28(1.13, 1.45)	< 0.001***	1.22(1.10, 1.37)	0.001**	1.17(1.04, 1.33)	0.020*	
P for trend		< 0.001***		0.012**		0.072		
VAI								13.76(4.83, 23.18)
Q1	527(21.6)	1(reference)		1(reference)		1(reference)		
Q2	620(25.4)	1.20(1.08, 1.36)	0.002**	1.18(1.05, 1.32)	0.008**	1.15(1.03, 1.30)	0.015*	
Q3	664(27.2)	1.24(1.11, 1.39)	< 0.001**	1.22(1.09, 1.37)	0.001**	1.20(1.08, 1.35)	0.003**	
Q4	633(25.9)	1.35(1.20, 1.51)	< 0.001***	1.30(1.15, 1.46)	< 0.001***	1.25(1.11, 1.40)	< 0.001***	
P for trend		< 0.001***		< 0.001***		0.002**		
LAP								10.34(1.60, 19.58)
Q1	529(21.6)	1(reference)		1(reference)		1(reference)		
Q2	654(26.8)	1.16(1.03, 1.30)	0.009**	1.14(1.03, 1.27)	0.021*	1.13(1.01, 1.27)	0.043*	
Q3	658(26.9)	1.22(1.08, 1.37)	0.001**	1.18(1.05, 1.33)	0.005**	1.15(1.03, 1.30)	0.020**	
Q4	603(24.7)	1.29(1.15, 1.46)	< 0.001***	1.25(1.11, 1.40)	< 0.001***	1.20(1.06, 1.36)	0.005**	
P for trend		< 0.001***		0.003**		0.025**		

Abbreviation: TIA, transient ischemic attacks; BMI, body mass index; WC, waist circumferences; WHtR, waist-to-height-ratio; TyG, triglyceride-glucose index; VAI, visceral adiposity index; LAP, lipid accumulation product; HR, hazard ratio; CI, confidence interval; Q, Quartile; TDI, Townsend deprivation index; PAF, population attributable fraction;

Model 1: adjusted for age, sex, ethnicity;

Model 2: adjusted for age, sex, ethnicity, TDI, education, income, Non-HDL-C, Lipid-lowering medication;

Model 3: adjusted for age, sex, ethnicity, TDI, education, income, Non-HDL-C, Lipid-lowering medication, smoking status, alcohol drinking, hypertension, diabetes and cancer;

PAF was used to evaluate the contribution of surrogate insulin resistance indexes (TyG, TyG-WC, TyG-BMI, TyG-WHtR, VAI, LAP) to the population disease burden (TIA), and the Q1 group was selected as the baseline of the model.

Bold values indicate significance, with a P value < 0.05. *P < 0.05, **P < 0.01, ***P < 0.001

Supplementary Table 10. Association between TyG and combined anthropometric indices with the risk of TIA. (2-year landmark analysis)

	Events (%)	Model 1 HR (95%CI)	<i>P</i> value	Model 2 HR (95%CI)	<i>P</i> value	Model 3 HR (95%CI)	<i>P</i> value	PAF% (95%CI)
TyG								9.21(2.48, 16.95)
Q1	713(18.1)	1(reference)		1(reference)		1(reference)		
Q2	958(24.3)	1.11(1.01, 1.22)	0.035*	1.10(1.01, 1.21)	0.051	1.08(0.98, 1.19)	0.131	
Q3	1,046(26.5)	1.12(1.02, 1.23)	0.021*	1.11(1.01, 1.22)	0.035*	1.09(0.99, 1.20)	0.063	
Q4	1,229(31.1)	1.31(1.19, 1.44)	< 0.001***	1.27(1.16, 1.40)	< 0.001***	1.21(1.11, 1.33)	< 0.001***	
P for trend		< 0.001***		< 0.001***		< 0.001***		
TyG-WC								11.04(3.32, 19.57)
Q1	670(17.0)	1(reference)		1(reference)		1(reference)		
Q2	919(23.3)	1.11(1.01, 1.23)	0.038*	1.11(1.00, 1.22)	0.048*	1.09(0.99, 1.21)	0.102	
Q3	1,073(27.2)	1.19(1.07, 1.32)	< 0.001***	1.17(1.06, 1.30)	0.004**	1.14(1.04, 1.27)	0.016**	
Q4	1,284(32.5)	1.38(1.24, 1.53)	< 0.001***	1.31(1.19, 1.46)	< 0.001***	1.25(1.13, 1.39)	< 0.001***	
P for trend		< 0.001***		< 0.001***		< 0.001***		
TyG-BMI								8.56(2.37, 15.44)
Q1	739(18.7)	1(reference)		1(reference)		1(reference)		
Q2	938(23.8)	1.06(0.97, 1.17)	0.228	1.05(0.97, 1.16)	0.338	1.04(0.95, 1.15)	0.441	
Q3	1,114(28.2)	1.20(1.09, 1.32)	< 0.001***	1.17(1.07, 1.28)	0.002**	1.14(1.04, 1.26)	0.007**	
Q4	1,155(29.3)	1.29(1.18, 1.41)	< 0.001***	1.23(1.13, 1.35)	< 0.001***	1.17(1.07, 1.29)	0.001**	
P for trend		< 0.001***		< 0.001***		0.004**		
TyG-WHtR								13.29(5.12, 21.65)
Q1	640(16.2)	1(reference)		1(reference)		1(reference)		
Q2	932(23.6)	1.15(1.03, 1.27)	0.009**	1.13(1.02, 1.26)	0.016*	1.12(1.01, 1.24)	0.032*	

Q3	1,094(27.7)	1.24(1.12, 1.38)	< 0.001***	1.21(1.09, 1.34)	< 0.001***	1.18(1.07, 1.31)	0.002**	
Q4	1,280(32.4)	1.40(1.27, 1.54)	< 0.001***	1.33(1.19, 1.46)	< 0.001***	1.25(1.14, 1.39)	< 0.001***	
P for trend		< 0.001***		< 0.001***		< 0.001***		
VAI								16.11(8.41, 24.11)
Q1	730(18.5)	1(reference)		1(reference)		1(reference)		
Q2	969(24.6)	1.17(1.05, 1.28)	< 0.001***	1.16(1.04, 1.27)	0.001**	1.14(1.03, 1.25)	0.009**	
Q3	1,022(25.9)	1.21(1.10, 1.33)	< 0.001***	1.18(1.07, 1.31)	< 0.001***	1.16(1.05, 1.28)	0.001**	
Q4	1,225(31.0)	1.45(1.32, 1.59)	< 0.001***	1.39(1.27, 1.53)	< 0.001***	1.34(1.22, 1.47)	< 0.001***	
P for trend		< 0.001***		< 0.001***		< 0.001***		
LAP								14.09(6.15, 22.37)
Q1	669(17.0)	1(reference)		1(reference)		1(reference)		
Q2	932(23.6)	1.14(1.03, 1.26)	0.012**	1.12(1.02, 1.24)	0.023*	1.12(1.02, 1.23)	0.041*	
Q3	1,117(28.3)	1.26(1.14, 1.39)	< 0.001***	1.23(1.12, 1.36)	< 0.001***	1.21(1.09, 1.33)	< 0.001***	
Q4	1,228(31.1)	1.39(1.26, 1.53)	< 0.001***	1.33(1.21, 1.47)	< 0.001***	1.29(1.17, 1.42)	< 0.001***	
P for trend		< 0.001***		< 0.001***		< 0.001***		

Abbreviation: TIA, transient ischemic attacks; BMI, body mass index; WC, waist circumferences; WHtR, waist-to-height-ratio; TyG, triglyceride-glucose index; VAI, visceral adiposity index; LAP, lipid accumulation product; HR, hazard ratio; CI, confidence interval; Q, Quartile; TDI, Townsend deprivation index; PAF, population attributable fraction;

Model 1: adjusted for age, sex, ethnicity;

Model 2: adjusted for age, sex, ethnicity, TDI, education, income, Non-HDL-C, Lipid-lowering medication;

Model 3: adjusted for age, sex, ethnicity, TDI, education, income, Non-HDL-C, Lipid-lowering medication, smoking status, alcohol drinking, hypertension, diabetes and cancer;

PAF was used to evaluate the contribution of surrogate insulin resistance indexes (TyG, TyG-WC, TyG-BMI, TyG-WHtR, VAI, LAP) to the population disease burden (TIA), and the Q1 group was selected as the baseline of the model.

Bold values indicate significance, with a P value < 0.05. *P < 0.05, **P < 0.01, ***P < 0.001