

**Table S1** The prevalence of thyroid autoantibody among 6 DM subtypes

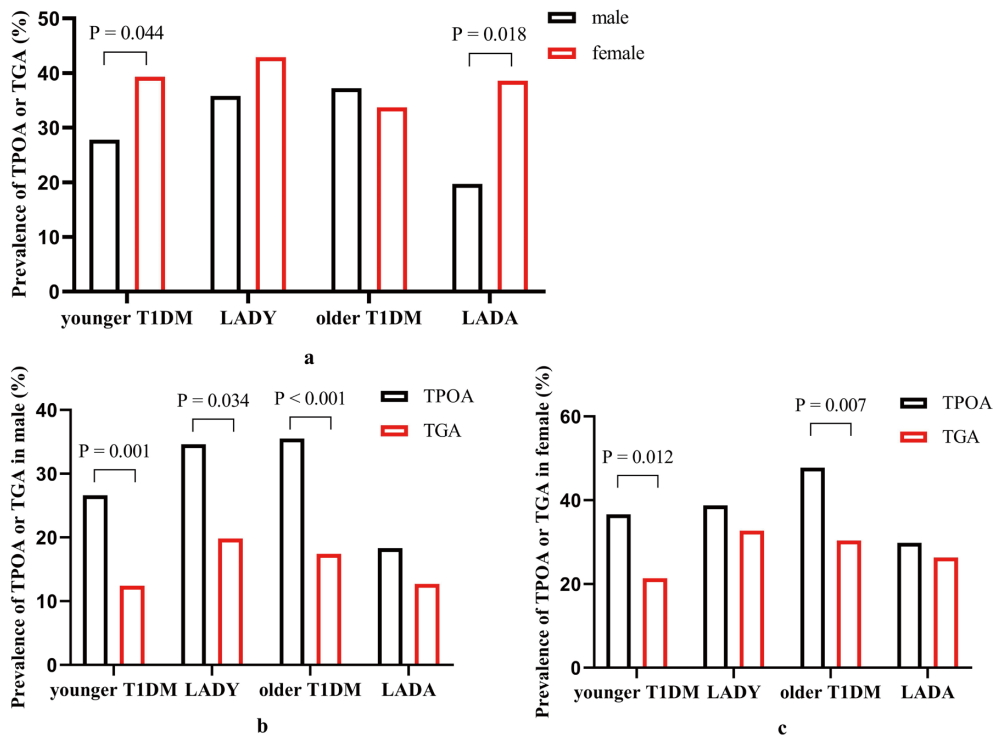
Variables	Younger T2DM (n=200)	Younger T1DM (n=281)	LADY (n=130)	Older T2DM (n=200)	Older T1DM (n=287)	LADA (n=129)
TPOA	8% (16/200)	30.6% (86/281) <sup>***</sup>	36.2% (47/130) <sup>***</sup>	12% (24/200) <sup>†††‡‡</sup>	40.4% (116/287) <sup>***†§§§</sup>	23.3% (30/129) <sup>***§§†††</sup>
TGA	4.5% (9/200)	16% (45/281) <sup>***</sup>	24.6% (32/130) <sup>***†</sup>	9% (18/200) <sup>†‡‡</sup>	22% (63/287) <sup>***§§§</sup>	18.6% (24/129) <sup>***§</sup>
TPOA or TGA	8.5% (17/200)	32.4% (91/281) <sup>***</sup>	38.5% (50/130) <sup>***</sup>	15% (30/200) <sup>†††‡‡</sup>	42.5% (122/287) <sup>***†§§§</sup>	27.9% (36/129) <sup>***§§†††</sup>

Data are shown as percentages (positive cases/total cases). <sup>†</sup>P<0.05, <sup>\*\*\*</sup>P≤0.001, compared with younger T2DM; <sup>†</sup>P<0.05, <sup>†††</sup>P≤0.001, compared with younger T1DM; <sup>†</sup>P<0.05, <sup>‡‡‡</sup>P≤0.001, compared with LADY; <sup>§</sup>P<0.05, <sup>§§</sup>P≤0.01, <sup>§§§</sup>P≤0.001, compared with older T2DM; <sup>††</sup>P≤0.01, <sup>†††</sup>P≤0.001, compared with older T1DM. T1DM, type 1 diabetes mellitus; LADY, latent autoimmune diabetes in the young; LADA, latent autoimmune diabetes in the adults; T2DM, type 2 diabetes; TPOA, thyroid peroxidase autoantibody; TGA, thyroglobulin autoantibody.

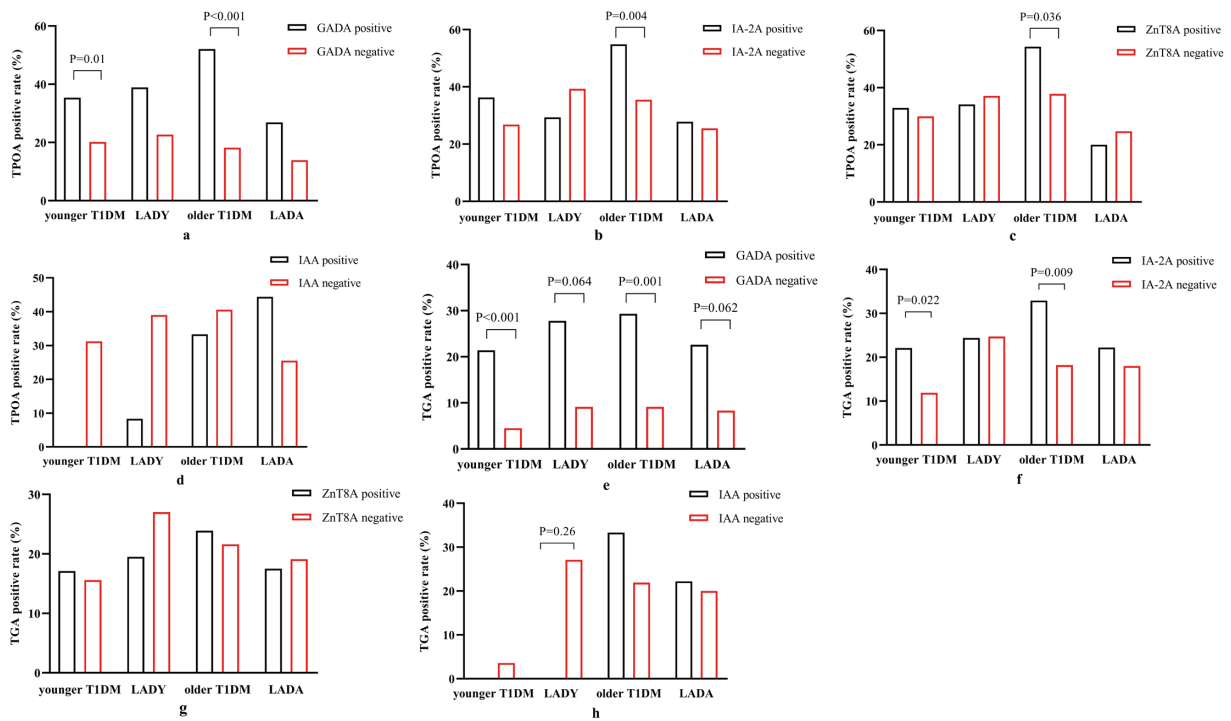
**Table S2** Clinical features of LADY patients with and without thyroid antibodies

Variables	TPOA or TGA positive (n=50)	TPOA and TGA negative (n=80)	P value
Age (years)	25.71±3.54	24.20±4.25	0.038
Female	42% (21/50)	35% (28/80)	0.423
BMI (kg/m <sup>2</sup> )	20.50±3.10	22.73±4.21	0.001
SBP (mmHg)	114.86±13.95	117.11±13.21	0.366
DBP (mmHg)	74.34±10.01	74.67±8.63	0.845
FBS (mmol/L)	9.70±4.31	9.00±4.34	0.387
HbA1c (%)	10.86±3.13	11.03±3.57	0.787
FCP (pmol/L)	233.1 (159.8–461.7)	296.4 (199.8–486.6)	0.194
PCP (pmol/L)	609.9 (309.7–1016.9)	559.4 (370.0–1124.9)	0.752
TG (mmol/L)	0.97 (0.76–1.62)	1.32 (0.91–2.32)	0.026
TC (mmol/L)	4.58±1.32	4.39±1.26	0.467
LDL-C (mmol/L)	2.93±1.14	2.60±0.92	0.093
HDL-C (mmol/L)	1.16 (1.05–1.57)	1.07 (0.92–1.32)	0.028

Data are presented as medians (interquartile ranges), means ± standard deviations, or ratios and their numbers where appropriate. LADY, latent autoimmune diabetes in youth; TPOA, thyroid peroxidase autoantibody; TGA, thyroglobulin autoantibody; BMI, body mass index; SBP, systolic blood pressure; DBP, diastolic blood pressure; FBS, fasting blood sugar; HbA1c, glycated hemoglobin; FCP, fasting C-peptide; PCP, postprandial C-peptide; TG, triglycerides; TC, total cholesterol; HDL-C, high-density lipoprotein cholesterol; LDL-C, low-density lipoprotein cholesterol.



**Figure S1** The distribution of TPOA or TGA in male and female patients of 4 autoimmune DM subtypes. (A) The prevalence of TPOA or TGA in male and female patients of 4 autoimmune diabetes subtypes. (B) The prevalence of TPOA or TGA in male patients of 4 autoimmune diabetes subtypes. (C) The prevalence of TPOA or TGA in female patients of 4 autoimmune diabetes subtypes. T1DM, type 1 diabetes mellitus; LADY, latent autoimmune diabetes in youth; LADA, latent autoimmune diabetes in adults; TPOA, thyroid peroxidase autoantibody; TGA, thyroglobulin autoantibody.



**Figure S2** The prevalence of thyroid autoantibody in patients of T1DM, LADY and LADA with or without islet autoantibodies positive. T1DM, type 1 diabetes mellitus; LADY, latent autoimmune diabetes in youth; LADA, latent autoimmune diabetes in adult; T2DM, type 2 diabetes mellitus; Abs, GADA, glutamic acid decarboxylase autoantibody; IA-2A, insulinoma-associated-2 autoantibody; ZnT8A, zinc transporter 8 autoantibody; IAA, insulin autoantibody; TPOA, thyroid peroxidase autoantibody; TGA, thyroglobulin autoantibody.