

Supplementary Table 1 Comparison of clinical data between the large-for-gestational-age group and the normal-for-gestational-age group in the validation cohort (n = 2103)

Variables	GDM-NGA group (n=1665)	GDM-LGA group (n=438)	<i>P</i>
Mothers			
Age (years)	29.79±3.45	30.13±3.66	0.063
Prepregnancy height (m)	1.62±0.05	1.63±0.05 ^b	<0.001
Prepregnancy weight (kg)	57.83±8.64	62.72±10.03 ^b	<0.001
Prepregnancy BMI (kg/m ²)	22.04±3.07	23.46±3.45 ^b	<0.001
Number of pregnancies			
1	864 (51.89%)	170 (38.81%) ^b	<0.001
2	494 (29.67%)	152 (34.70%)	
≥3	307 (18.44%)	116 (26.48%)	
Parity			
1	1215 (72.97%)	264 (60.27%) ^b	<0.001
2	432 (25.95%)	168 (38.36%)	
≥3	18 (1.08%)	6 (1.37%)	
Clinical data at 24 gestational weeks			
Weight (kg)	63.85±8.77	69.88±10.20 ^b	<0.001
WGW (kg)	6.02±3.26	7.16±3.67 ^b	<0.001
BMI (kg/m ²)	24.33±3.10	26.15±3.51 ^b	<0.001
Waist-height ratio	0.55±0.04	0.57±0.04 ^b	<0.001
SBP (mm/Hg)	112.18±11.29	113.37±11.53	0.050
DBP (mm/Hg)	69.76±8.48	70.00±8.26	0.597
AC (cm)	89.71±6.04	92.82±7.05 ^b	<0.001
Laboratory indices			
BUN (mmol/L)	3.05±0.67	2.97±0.67 ^a	0.022

Cr ($\mu\text{mol/L}$)	38.97 \pm 6.79	38.98 \pm 6.83	0.982
UA ($\mu\text{mol/L}$)	233.14 \pm 49.33	240.30 \pm 52.84 ^a	0.008
TP (g/L)	65.82 \pm 3.44	65.82 \pm 3.47	0.988
ALB (g/L)	39.25 \pm 2.21	39.11 \pm 2.30	0.218
TC (mmol/L)	5.92 \pm 0.96	5.85 \pm 1.02	0.189
TG (mmol/L)	2.28 \pm 0.97	2.48 \pm 0.90 ^b	<0.001
FBG (mmol/L)	4.80 \pm 0.46	4.97 \pm 0.55 ^b	<0.001
ALT (U/L)	19.96 \pm 15.52	17.63 \pm 12.74 ^a	0.004
AST (U/L)	18.94 \pm 8.08	17.95 \pm 7.01 ^a	0.019
ALP (U/L)	56.79 \pm 13.92	56.32 \pm 14.93	0.533
LDH (U/L)	163.35 \pm 27.04	165.12 \pm 29.95	0.232
GGT (U/L)	16.08 \pm 9.73	15.93 \pm 8.77	0.770
HDL-C (mmol/L)	2.32 \pm 0.38	2.25 \pm 0.39 ^a	0.001
LDL-C (mmol/L)	2.99 \pm 0.64	3.01 \pm 0.66	0.565
TSH (mIU/L)	2.17 \pm 1.11	2.16 \pm 1.09	0.808
TPOAb (IU/mL)	22.45 \pm 37.56	27.31 \pm 58.07	0.034
FT4 (pmol/L)	12.60 \pm 1.76	12.32 \pm 1.73 ^a	0.003
HbA1c (%)	5.09 \pm 0.27	5.20 \pm 0.39 ^b	<0.001
TyG	9.00 \pm 0.38	9.13 \pm 0.38 ^b	<0.001
ALT/AST	0.99 \pm 0.36	0.93 \pm 0.33 ^a	0.001
TG/HDL-C	1.02 \pm 0.56	1.11 \pm 0.54 ^a	0.001

Information about pregnancy

Cesarean section (N, %)	607 (36.46%)	259 (59.13%) ^b	<0.001
Birth week (weeks)	39.12 \pm 0.96	39.06 \pm 0.94	0.237
Infant weight (kg)	3.30 \pm 0.28	3.98 \pm 0.28 ^b	<0.001
Infant sex			
Boy (N, %)	897 (53.87%)	220 (50.23%)	0.179
Girl (N, %)	768 (46.13%)	218 (49.77%)	

^a $P < 0.05$ vs. the GDM-NGA group; ^b $P < 0.001$ vs. the GDM-NGA group.

GDM: gestational diabetes mellitus; NGA: normal-for-gestational-age; LGA: large-for-gestational-age; BMI: body mass index; WGW: weight gain during pregnancy measured at the 24th week; SBP: systolic blood pressure; DBP: diastolic blood pressure; AC: abdominal circumference; BUN: urea nitrogen; Cr: creatinine; UA: uric acid; TP: total protein; ALB: albumin; TC: total cholesterol; TG: triglyceride; FBG: fasting plasma glucose; ALT: alanine transaminase; AST: aspartate aminotransferase; ALP: alkaline phosphatase; LDH: lactate dehydrogenase; GGT: γ -glutamyl transpeptidase; HDL-C: high-density lipoprotein cholesterol; LDL-C: low-density lipoprotein cholesterol; TSH: thyroid stimulating hormone; TPOAb: thyroid peroxidase antibody; FT4: free tetraiodothyronine; HbA1c: glycosylated hemoglobin; TyG: triglyceride–glucose index.

Supplementary Table 2 Comparison of clinical data between the large-for-gestational-age group and the normal-for-gestational-age group in the test cohort ($n = 1611$)

Variables	GDM-NGA group (n=1300)	GDM-LGA group (n=311)	<i>P</i>
Mothers			
Age (years)	30.44±3.58	30.50±3.78	0.0761
Prepregnancy height (m)	1.62±0.05	1.63±0.05 ^b	<0.001
Prepregnancy weight (kg)	57.88±8.20	62.55±9.74 ^b	<0.001
Prepregnancy BMI (kg/m ²)	22.05±2.89	23.40±3.36 ^b	<0.001
Number of pregnancies			
1	679 (52.23%)	125 (40.19%) ^b	<0.001
2	395 (30.38%)	90 (28.94%)	
≥3	226 (17.38%)	96 (30.87%)	
Parity			

1	964 (74.15%)	194 (62.38%) ^b	<0.001
2	320 (24.62%)	104 (33.44%)	
≥3	16 (1.23%)	13 (4.18%)	
Clinical data at 24 gestational weeks			
Weight (kg)	64.04±8.47	69.57±9.83 ^b	<0.001
WGW (kg)	6.17±3.15	7.02±3.87 ^b	<0.001
BMI (kg/m ²)	24.40±2.96	26.04±3.36 ^b	<0.001
Waist-height ratio	0.56±0.04	0.58±0.04 ^b	<0.001
SBP (mm/Hg)	113.83±10.98	114.91±10.21	0.114
DBP (mm/Hg)	72.04±7.71	72.88±7.35	0.079
AC (cm)	90.21±6.81	94.09±7.28 ^b	<0.001
Laboratory indices			
BUN (mmol/L)	3.13±0.73	3.07±0.73	0.133
Cr (μmol/L)	39.56±6.00	39.11±5.82	0.240
UA (μmol/L)	235.92±46.77	238.91±49.14	0.317
TP (g/L)	65.89±3.24	65.53±3.24	0.080
ALB (g/L)	40.45±2.52	40.02±2.39 ^a	0.006
TC (mmol/L)	5.98±0.97	5.83±1.00 ^a	0.011
TG (mmol/L)	2.28±0.85	2.52±0.97 ^b	<0.001
FBG (mmol/L)	4.93±0.47	5.05±0.54 ^b	<0.001
ALT (U/L)	20.67±16.23	16.76±9.58 ^b	<0.001
AST (U/L)	19.65±8.03	17.80±5.33 ^b	<0.001
ALP (U/L)	58.77±13.70	58.95±13.07	0.833
LDH (U/L)	167.21±25.27	168.54±25.85	0.405
GGT (U/L)	15.53±9.45	15.43±9.43	0.867
HDL-C (mmol/L)	2.25±0.41	2.15±0.42 ^b	<0.001
LDL-C (mmol/L)	2.91±0.68	2.85±0.71	0.215
TSH (mIU/L)	2.19±1.05	2.19±1.17	0.963
TPOAb (IU/mL)	21.61±36.42	21.59±43.11	0.994

FT4 (pmol/L)	13.12±1.79	12.56±1.68 ^b	<0.001
HbA1c (%)	5.07±0.27	5.16±0.29 ^b	<0.001
TyG	9.03±0.37	9.16±0.36 ^b	<0.001
ALT/AST	0.99±0.35	0.91±0.31 ^b	<0.001
TG/HDL-C	1.08±0.57	1.25±0.67 ^b	<0.001

Information about pregnancy

Cesarean section (N, %)	488 (37.54%)	172 (55.31%) ^b	<0.001
Birth week (weeks)	39.01±0.93	38.88±0.99 ^a	0.027
Infant weight (kg)	3.30±0.28	3.96±0.28 ^b	<0.001
Infant sex			
Boy (N, %)	703 (54.08%)	169 (54.34%)	0.933
Girl (N, %)	597 (45.92%)	142 (45.66%)	

^a*P* < 0.05 *vs.* the GDM-NGA group; ^b*P* < 0.001 *vs.* the GDM-NGA group.

GDM: gestational diabetes mellitus; LGA: large-for-gestational-age; NGA: normal-for-gestational-age; BMI: body mass index; WGW: weight gain during pregnancy measured at the 24th week; SBP: systolic blood pressure; DBP: diastolic blood pressure; AC: abdominal circumference; BUN: urea nitrogen; Cr: creatinine; UA: uric acid; TP: total protein; ALB: albumin; TC: total cholesterol; TG: triglyceride; FBG: fasting plasma glucose; ALT: alanine transaminase; AST: aspartate aminotransferase; ALP: alkaline phosphatase; LDH: lactate dehydrogenase; GGT: γ -glutamyl transpeptidase; HDL-C: high-density lipoprotein cholesterol; LDL-C: low-density lipoprotein cholesterol; TSH: thyroid stimulating hormone; TPOAb: thyroid peroxidase antibody; FT4: free tetraiodothyronine; HbA1c: glycosylated hemoglobin; TyG: triglyceride–glucose index.