

## Supplementary material

### **Blood cell parameters from early to middle pregnancy and risk of gestational diabetes mellitus**

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**Supplementary Table 1.** Multivariable-adjusted odds ratios (OR) and 95% confidence intervals (CI) for the association between percentage change in inflammatory blood cell parameters from early to middle pregnancy and GDM (n=6354)

Inflammatory blood cell parameters	Per 1-SD increment	<i>P</i> value	FDR- <i>P</i> value
WBCs	0.98 (0.87-1.10)	0.775	0.919
Neutrophils	1.02 (0.90-1.15)	0.793	0.919
Lymphocytes	1.01 (0.90-1.13)	0.910	0.919
Monocytes	1.01 (0.90-1.13)	0.853	0.919
NLR	1.02 (0.91-1.13)	0.789	0.919
Platelets	0.99 (0.89-1.11)	0.919	0.919

Abbreviations: BMI, body mass index; FDR, false discovery rate; GDM, gestational diabetes mellitus; NLR, neutrophil to lymphocyte ratio; WBC, white blood cell; SD, standard deviation.

Models were adjusted for maternal age, prepregnancy BMI, difference in gestational age at blood collection between early and middle pregnancy, education, parity, parental diabetes history, history of GDM, cigarette smoking, alcohol drinking, and the levels of inflammatory blood cell parameters in early pregnancy.

**Supplementary Table 2.** Sensitivity analyses for the associations between inflammatory blood cell parameters and GDM

Inflammatory blood cell parameters	OR (95% CI) for GDM				FDR- <i>P</i> for trend <sup>a</sup>	Per 1-SD increment OR (95% CI)	FDR- <i>P</i> value
	Q1	Q2	Q3	Q4			
Sensitivity analysis 1: excluding those with inflammatory blood cell parameters outside the normal reference range							
<b>Early pregnancy</b>							
WBCs (n=5762)	Reference	1.24 (0.87-1.76)	1.57 (1.12-2.19)	2.14 (1.55-2.95)	<.001	1.34 (1.20-1.50)	<.001
Neutrophils (n=5983)	Reference	1.38 (0.97-1.95)	1.74 (1.25-2.43)	2.44 (1.78-3.37)	<.001	1.37 (1.23-1.53)	<.001
Lymphocytes (n=5988)	Reference	1.02 (0.76-1.39)	1.08 (0.80-1.46)	1.50 (1.13-1.99)	.004	1.23 (1.11-1.35)	<.001
Monocytes (n=6341)	Reference	1.14 (0.84-1.53)	1.36 (1.01-1.82)	1.61 (1.22-2.14)	<.001	1.23 (1.11-1.35)	<.001
NLR (n=5635)	Reference	1.14 (0.83-1.58)	1.40 (1.02-1.92)	1.32 (0.96-1.82)	.073	1.14 (1.02-1.26)	.021
Platelets (n=5909)	Reference	0.97 (0.72-1.31)	1.04 (0.77-1.39)	1.12 (0.84-1.50)	.364	1.02 (0.92-1.14)	.643
<b>Middle pregnancy</b>							
WBCs (n=4849)	Reference	1.15 (0.80-1.63)	1.22 (0.85-1.76)	1.26 (0.89-1.78)	.215	1.08 (0.95-1.22)	.302
Neutrophils (n=5246)	Reference	1.19 (0.84-1.67)	1.12 (0.79-1.57)	1.68 (1.22-2.33)	.015	1.22 (1.09-1.38)	.005
Lymphocytes (n=5934)	Reference	1.28 (0.95-1.74)	1.03 (0.76-1.41)	1.44 (1.07-1.93)	.082	1.12 (1.01-1.23)	.051
Monocytes (n=6303)	Reference	1.00 (0.74-1.35)	1.22 (0.91-1.65)	1.37 (1.03-1.82)	.032	1.13 (1.02-1.25)	.051
NLR (n=4860)	Reference	0.90 (0.64-1.28)	1.22 (0.88-1.70)	1.17 (0.84-1.64)	.215	1.07 (0.95-1.20)	.302
Platelets (n=5906)	Reference	0.99 (0.74-1.32)	0.80 (0.59-1.07)	1.01 (0.76-1.34)	.825	0.98 (0.88-1.08)	.673
Sensitivity analysis 2: excluding those diagnosed with inflammatory disease and treated at baseline (n=6285)							
<b>Early pregnancy</b>							
WBCs	Reference	1.26 (0.91-1.74)	1.66 (1.21-2.27)	2.38 (1.77-3.21)	<.001	1.42 (1.29-1.55)	<.001
Neutrophils	Reference	1.39 (0.99-1.94)	1.90 (1.38-2.61)	2.51 (1.85-3.41)	<.001	1.38 (1.26-1.51)	<.001
Lymphocytes	Reference	0.96 (0.72-1.30)	1.07 (0.80-1.43)	1.40 (1.06-1.85)	.010	1.23 (1.12-1.35)	<.001
Monocytes	Reference	1.14 (0.85-1.53)	1.31 (0.98-1.75)	1.69 (1.28-2.25)	<.001	1.20 (1.09-1.32)	<.001
NLR	Reference	1.16 (0.85-1.57)	1.47 (1.10-1.98)	1.51 (1.13-2.03)	.004	1.10 (1.02-1.19)	.017
Platelets	Reference	0.98 (0.73-1.32)	1.00 (0.75-1.34)	1.17 (0.88-1.54)	.249	1.05 (0.95-1.16)	.327
<b>Middle pregnancy</b>							
WBCs	Reference	1.33 (0.98-1.80)	1.24 (0.90-1.70)	2.02 (1.52-2.70)	<.001	1.27 (1.16-1.40)	<.001
Neutrophils	Reference	1.17 (0.86-1.59)	1.26 (0.93-1.70)	1.84 (1.38-2.45)	<.001	1.27 (1.16-1.40)	<.001
Lymphocytes	Reference	1.29 (0.96-1.72)	1.08 (0.80-1.46)	1.40 (1.05-1.86)	.068	1.10 (1.00-1.21)	.062
Monocytes	Reference	1.00 (0.74-1.35)	1.26 (0.94-1.68)	1.39 (1.04-1.84)	.014	1.14 (1.03-1.25)	.016
NLR	Reference	0.86 (0.64-1.16)	1.28 (0.97-1.69)	1.31 (0.99-1.73)	.014	1.09 (1.00-1.18)	.062
Platelets	Reference	1.17 (0.88-1.55)	0.93 (0.70-1.25)	1.14 (0.86-1.52)	.607	1.01 (0.92-1.12)	.819
Sensitivity analysis 3: excluding those with history of GDM, current drinkers, and smokers (n=6152)							
<b>Early pregnancy</b>							

WBCs	Reference	1.28 (0.92-1.78)	1.60 (1.16-2.21)	2.34 (1.72-3.18)	<.001	1.39 (1.27-1.53)	<.001
Neutrophils	Reference	1.44 (1.02-2.03)	1.88 (1.35-2.61)	2.48 (1.80-3.41)	<.001	1.36 (1.24-1.49)	<.001
Lymphocytes	Reference	1.03 (0.76-1.40)	1.07 (0.79-1.45)	1.38 (1.03-1.85)	.026	1.21 (1.10-1.34)	<.001
Monocytes	Reference	1.13 (0.83-1.53)	1.25 (0.92-1.69)	1.68 (1.25-2.24)	.001	1.20 (1.08-1.32)	<.001
NLR	Reference	1.14 (0.83-1.57)	1.52 (1.12-2.06)	1.50 (1.10-2.03)	.007	1.10 (1.02-1.19)	.023
Platelets	Reference	0.93 (0.69-1.26)	0.98 (0.73-1.33)	1.13 (0.85-1.51)	.323	1.04 (0.94-1.15)	.485
<b>Middle pregnancy</b>							
WBCs	Reference	1.32 (0.97-1.81)	1.11 (0.79-1.56)	2.04 (1.51-2.74)	<.001	1.26 (1.14-1.39)	<.001
Neutrophils	Reference	1.16 (0.85-1.59)	1.18 (0.86-1.62)	1.82 (1.36-2.45)	<.001	1.26 (1.14-1.39)	<.001
Lymphocytes	Reference	1.24 (0.92-1.66)	1.00 (0.74-1.37)	1.31 (0.98-1.76)	.189	1.08 (0.98-1.19)	.155
Monocytes	Reference	1.11 (0.81-1.51)	1.27 (0.93-1.72)	1.43 (1.06-1.92)	.020	1.12 (1.02-1.24)	.046
NLR	Reference	0.87 (0.64-1.19)	1.29 (0.96-1.72)	1.39 (1.04-1.85)	.007	1.09 (1.01-1.19)	.057
Platelets	Reference	1.08 (0.81-1.45)	0.94 (0.70-1.27)	1.07 (0.80-1.44)	.806	1.00 (0.91-1.11)	.934
Sensitivity analysis 4: further adjusting for antibiotic use in early or middle pregnancy (n=6354)							
<b>Early pregnancy</b>							
WBCs	Reference	1.25 (0.90-1.74)	1.65 (1.21-2.26)	2.39 (1.77-3.22)	<.001	1.42 (1.29-1.56)	<.001
Neutrophils	Reference	1.35 (0.96-1.89)	1.87 (1.36-2.57)	2.47 (1.82-3.36)	<.001	1.38 (1.26-1.52)	<.001
Lymphocytes	Reference	0.97 (0.72-1.30)	1.06 (0.79-1.42)	1.40 (1.06-1.86)	.009	1.23 (1.12-1.35)	<.001
Monocytes	Reference	1.14 (0.85-1.53)	1.30 (0.97-1.75)	1.69 (1.27-2.25)	<.001	1.20 (1.09-1.32)	<.001
NLR	Reference	1.15 (0.85-1.56)	1.47 (1.09-1.97)	1.51 (1.12-2.02)	.005	1.10 (1.02-1.19)	.017
Platelets	Reference	1.00 (0.74-1.34)	1.01 (0.76-1.35)	1.18 (0.89-1.56)	.223	1.05 (0.95-1.16)	.299
<b>Middle pregnancy</b>							
WBCs	Reference	1.32 (0.97-1.79)	1.23 (0.90-1.70)	2.02 (1.51-2.69)	<.001	1.27 (1.16-1.40)	<.001
Neutrophils	Reference	1.16 (0.85-1.58)	1.26 (0.93-1.70)	1.83 (1.38-2.44)	<.001	1.27 (1.16-1.40)	<.001
Lymphocytes	Reference	1.29 (0.96-1.72)	1.07 (0.79-1.45)	1.40 (1.05-1.86)	.070	1.10 (1.00-1.21)	.061
Monocytes	Reference	1.00 (0.74-1.35)	1.25 (0.94-1.67)	1.38 (1.04-1.84)	.015	1.14 (1.03-1.25)	.019
NLR	Reference	0.85 (0.63-1.15)	1.29 (0.97-1.70)	1.30 (0.99-1.73)	.015	1.08 (1.00-1.18)	.072
Platelets	Reference	1.17 (0.88-1.55)	0.94 (0.70-1.26)	1.15 (0.86-1.52)	.603	1.01 (0.92-1.12)	.818

Abbreviations: BMI, body mass index; CI, confidence interval; NLR, neutrophil to lymphocyte ratio; FDR, false discovery rate; GDM, gestational diabetes mellitus; OR, odds ratio; SD, standard deviation; WBC, white blood cell.

Models were adjusted for maternal age, prepregnancy BMI, gestational age at the time of blood collection, education, parity, parental diabetes history, history of GDM (except for sensitivity analysis 3), cigarette smoking, alcohol drinking.

<sup>a</sup> Tests for trend were assessed by modeling median values of quartiles of blood cell parameters as continuous variables.

**Supplementary Table 3.** Sensitivity analyses for the associations between the change patterns of inflammatory blood cell parameters from early to middle pregnancy and GDM

Variables	Early pregnancy	Middle pregnancy	Sensitivity analysis 1 <sup>a</sup>		Sensitivity analysis 2 <sup>b</sup>		Sensitivity analysis 3 <sup>c</sup>		Sensitivity analysis 4 <sup>d</sup>	
			OR (95% CI)	FDR- <i>P</i> value	OR (95% CI)	FDR- <i>P</i> value	OR (95% CI)	FDR- <i>P</i> value	OR (95% CI)	FDR- <i>P</i> value
WBCs										
	Low	Low	Reference		Reference		Reference		Reference	
	Low	High	0.89 (0.59-1.34)	.731	0.96 (0.64-1.43)	.877	0.94 (0.62-1.42)	.796	0.96 (0.64-1.43)	.845
	High	Low	1.47 (0.99-2.18)	.158	1.59 (1.16-2.16)	.011	1.57 (1.14-2.15)	.018	1.58 (1.16-2.16)	.011
	High	High	1.51 (1.11-2.04)	.047	1.88 (1.48-2.39)	<.001	1.80 (1.41-2.31)	<.001	1.88 (1.48-2.40)	<.001
Neutrophils										
	Low	Low	Reference		Reference		Reference		Reference	
	Low	High	0.82 (0.55-1.21)	.477	1.03 (0.71-1.49)	.877	1.04 (0.71-1.53)	.824	1.05 (0.72-1.52)	.845
	High	Low	1.41 (0.98-2.03)	.158	1.64 (1.20-2.25)	.007	1.65 (1.19-2.27)	.009	1.64 (1.20-2.25)	.007
	High	High	1.73 (1.31-2.29)	.002	1.95 (1.53-2.49)	<.001	1.88 (1.46-2.42)	<.001	1.95 (1.52-2.49)	<.001
Lymphocytes										
	Low	Low	Reference		Reference		Reference		Reference	
	Low	High	1.01 (0.71-1.42)	.976	1.12 (0.81-1.56)	.685	1.11 (0.79-1.55)	.777	1.11 (0.80-1.55)	.724
	High	Low	1.34 (0.98-1.85)	.158	1.35 (0.99-1.83)	.111	1.33 (0.97-1.82)	.178	1.34 (0.99-1.82)	.117
	High	High	1.22 (0.95-1.57)	.226	1.22 (0.96-1.56)	.180	1.15 (0.90-1.48)	.461	1.22 (0.96-1.55)	.198
Monocytes										
	Low	Low	Reference		Reference		Reference		Reference	
	Low	High	0.92 (0.64-1.31)	.757	0.94 (0.66-1.34)	.877	0.92 (0.64-1.34)	.796	0.94 (0.65-1.34)	.845
	High	Low	1.17 (0.85-1.61)	.477	1.17 (0.85-1.62)	.495	1.18 (0.85-1.64)	.490	1.17 (0.85-1.61)	.506
	High	High	1.57 (1.23-1.99)	.002	1.58 (1.24-2.00)	.001	1.52 (1.19-1.94)	.004	1.57 (1.24-2.00)	.001
NLR										
	Low	Low	Reference		Reference		Reference		Reference	
	Low	High	1.37 (0.96-1.97)	.174	1.39 (1.01-1.91)	.091	1.35 (0.97-1.87)	.178	1.39 (1.01-1.91)	.107
	High	Low	1.45 (1.00-2.10)	.158	1.39 (1.02-1.89)	.091	1.32 (0.96-1.83)	.181	1.36 (1.00-1.86)	.117
	High	High	1.41 (1.03-1.91)	.133	1.62 (1.27-2.08)	.001	1.67 (1.30-2.15)	<.001	1.63 (1.28-2.08)	.001
Platelets										
	Low	Low	Reference		Reference		Reference		Reference	
	Low	High	0.93 (0.64-1.35)	.757	0.96 (0.67-1.38)	.877	0.94 (0.64-1.36)	.796	0.96 (0.67-1.38)	.845
	High	Low	1.21 (0.87-1.67)	.428	1.23 (0.89-1.70)	.350	1.21 (0.86-1.69)	.461	1.24 (0.90-1.72)	.309
	High	High	0.95 (0.74-1.21)	.757	1.04 (0.83-1.30)	.877	1.04 (0.82-1.32)	.796	1.04 (0.83-1.31)	.845

Abbreviations: BMI, body mass index; CI, confidence interval; FDR, false discovery rate; GDM, gestational diabetes mellitus; NLR, neutrophil to lymphocyte ratio;

OR, odds ratio; WBC, white blood cell.

The models were adjusted for maternal age, difference in gestational age at blood collection between early and middle pregnancy, prepregnancy BMI, education, parity, parental diabetes history, history of GDM (except for sensitivity analysis 3), cigarette smoking, and alcohol drinking. High means levels above median, while low means levels below median.

<sup>a</sup> Sensitivity1: excluding those with inflammatory blood cell parameters outside the normal reference range.

<sup>b</sup> Sensitivity2: excluding those diagnosed with inflammatory disease and treated at baseline (n=69), and a total of 6285 participants remained for sensitivity analysis.

<sup>c</sup> Sensitivity3: excluding those with history of GDM, current drinkers, and smokers (n=202), and a total of 6152 participants were remained for sensitivity analysis.

<sup>d</sup> Sensitivity4: further adjusting for antibiotic use in early or middle pregnancy (n=6354).

**Supplementary Table 4.** Multivariable-adjusted regression coefficients for the associations between inflammatory blood cell parameters and plasma glucose values in 75-g OGTT <sup>a</sup>

Inflammatory blood cell parameters	OGTT-fasting		OGTT-1 hour		OGTT-2 hour	
	$\beta$ (95% CI) <sup>b</sup>	FDR- <i>P</i> value	$\beta$ (95% CI) <sup>b</sup>	FDR- <i>P</i> value	$\beta$ (95% CI) <sup>b</sup>	FDR- <i>P</i> value
<b>Early pregnancy</b>						
WBCs	0.005 (0.003-0.007)	<.001	0.017 (0.012-0.023)	<.001	0.024 (0.019-0.029)	<.001
Neutrophils	0.005 (0.003-0.007)	<.001	0.017 (0.012-0.023)	<.001	0.024 (0.019-0.029)	<.001
Lymphocytes	0.001 (-0.001-0.003)	.377	0.007 (0.002-0.013)	.014	0.013 (0.008-0.018)	<.001
Monocytes	0.005 (0.003-0.007)	<.001	0.009 (0.004-0.015)	.003	0.012 (0.007-0.017)	<.001
NLR	0.004 (0.001-0.006)	.002	0.008 (0.003-0.014)	.005	0.009 (0.004-0.014)	<.001
Platelets	0.001 (-0.002-0.003)	.632	-0.001 (-0.006-0.005)	.865	0.005 (0.000-0.010)	.051
<b>Middle pregnancy</b>						
WBCs	0.006 (0.003-0.008)	<.001	0.016 (0.010-0.022)	<.001	0.023 (0.018-0.028)	<.001
Neutrophils	0.006 (0.004-0.008)	<.001	0.016 (0.011-0.022)	<.001	0.023 (0.018-0.028)	<.001
Lymphocytes	0.000 (-0.002-0.002)	.796	0.008 (0.002-0.014)	.015	0.010 (0.005-0.015)	<.001
Monocytes	0.004 (0.002-0.006)	<.001	0.007 (0.001-0.013)	.025	0.010 (0.005-0.015)	<.001
NLR	0.005 (0.003-0.007)	<.001	0.007 (0.001-0.012)	.025	0.010 (0.005-0.015)	<.001
Platelets	0.002 (0.000-0.004)	.083	-0.001 (-0.006-0.005)	.806	0.005 (0.000-0.010)	.041
<b>Changes from early to middle pregnancy</b>						
WBCs						
Low, low	Reference		Reference		Reference	
Low, high	0.008 (0.001-0.015)	.085	0.010 (-0.008-0.029)	.369	0.026 (0.009-0.043)	.004
High, low	0.006 (0.000-0.012)	.124	0.024 (0.007-0.041)	.020	0.032 (0.016-0.047)	<.001
High, high	0.011 (0.007-0.016)	<.001	0.032 (0.018-0.045)	<.001	0.053 (0.042-0.065)	<.001
Neutrophils						
Low, low	Reference		Reference		Reference	
Low, high	0.007 (0.000-0.013)	.115	0.017 (-0.001-0.034)	.148	0.028 (0.013-0.044)	.001
High, low	0.005 (-0.001-0.012)	.203	0.029 (0.011-0.046)	.005	0.035 (0.019-0.050)	<.001
High, high	0.015 (0.010-0.020)	<.001	0.037 (0.024-0.050)	<.001	0.056 (0.044-0.068)	<.001
Lymphocytes						
Low, low	Reference		Reference		Reference	
Low, high	-0.002 (-0.008-0.005)	.781	0.014 (-0.004-0.032)	.256	0.010 (-0.006-0.026)	.256

High, low	-0.001 (-0.008-0.005)	.802	0.010 (-0.007-0.028)	.369	0.017 (0.002-0.033)	.047
High, high	0.000 (-0.005-0.005)	.964	0.015 (0.002-0.029)	.068	0.023 (0.011-0.035)	.001
Monocytes						
Low, low	Reference		Reference		Reference	
Low, high	0.004 (-0.003-0.011)	.354	-0.010 (-0.028-0.008)	.369	-0.006 (-0.022-0.010)	.467
High, low	0.006 (0.000-0.013)	.124	0.003 (-0.021-0.014)	.752	0.005 (-0.011-0.020)	.569
High, high	0.010 (0.005-0.015)	<.001	0.022 (0.008-0.035)	.005	0.029 (0.017-0.041)	<.001
NLR						
Low, low	Reference		Reference		Reference	
Low, high	0.007 (0.001-0.014)	.082	0.013 (-0.004-0.030)	.256	0.028 (0.013-0.043)	.001
High, low	0.002 (-0.004-0.008)	.702	0.011 (-0.006-0.028)	.333	0.011 (-0.004-0.026)	.211
High, high	0.011 (0.006-0.016)	<.001	0.022 (0.009-0.036)	.005	0.024 (0.012-0.036)	<.001
Platelets						
Low, low	Reference		Reference		Reference	
Low, high	0.006 (-0.001-0.013)	.188	-0.001 (-0.020-0.019)	.940	0.010 (-0.007-0.028)	.278
High, low	-0.002 (-0.009-0.005)	.734	0.005 (-0.015-0.024)	.729	0.013 (-0.004-0.031)	.187
High, high	0.001 (-0.004-0.006)	.795	-0.007 (-0.019-0.006)	.369	0.009 (-0.003-0.020)	.187

High means levels above median, while low means levels below median.

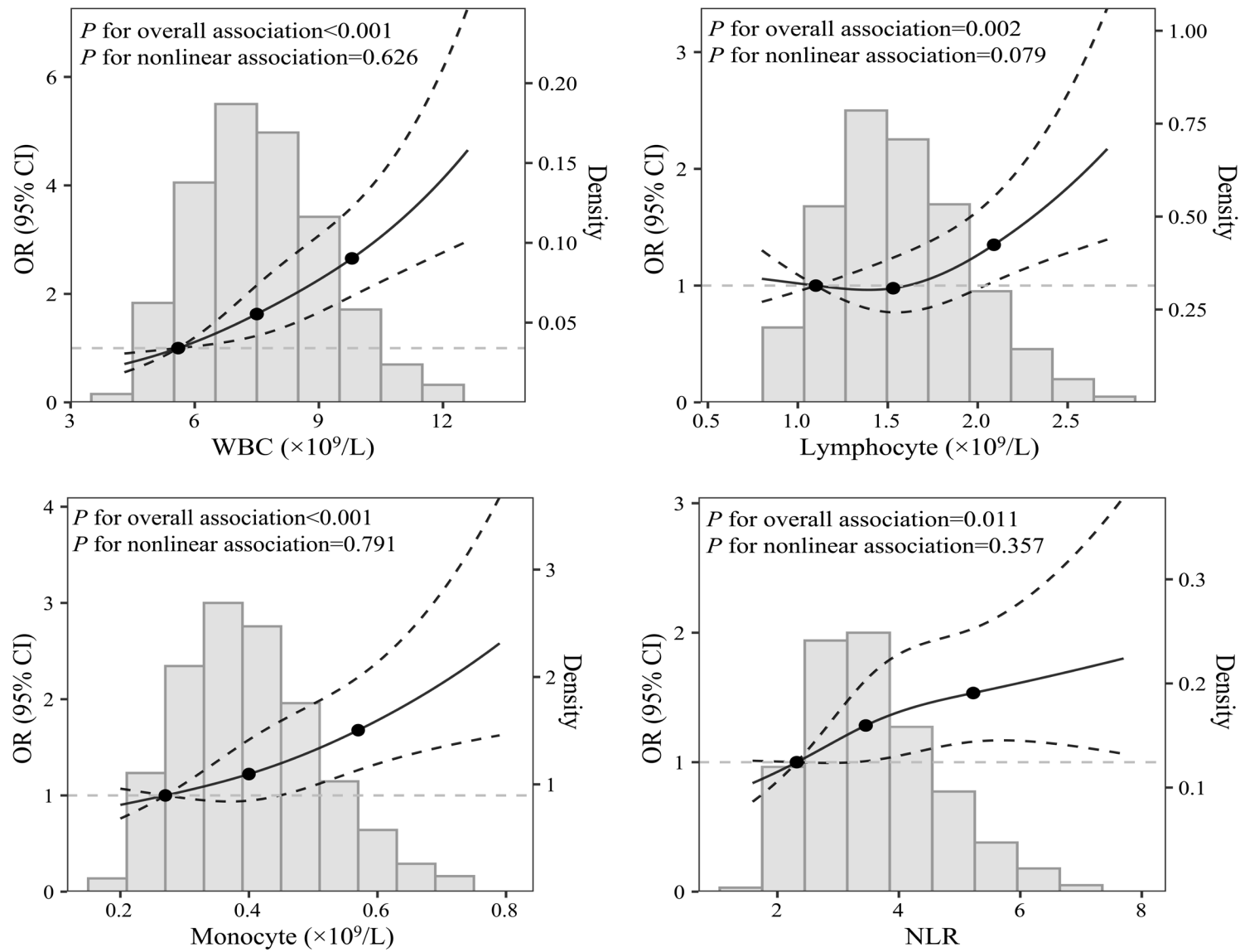
Abbreviations: BMI, body mass index; FDR, false discovery rate; GDM, gestational diabetes mellitus; NLR, neutrophil to lymphocyte ratio; OGTT, oral glucose tolerance test; WBC, white blood cell.

<sup>a</sup> The levels of inflammatory blood cell parameters and plasma glucose were nature log-transformed before analyses. A total of 103, 148, and 150 participants in the cohort had missing values for OGTT -fasting, OGTT-1 hour, and OGTT-2 hour, respectively.

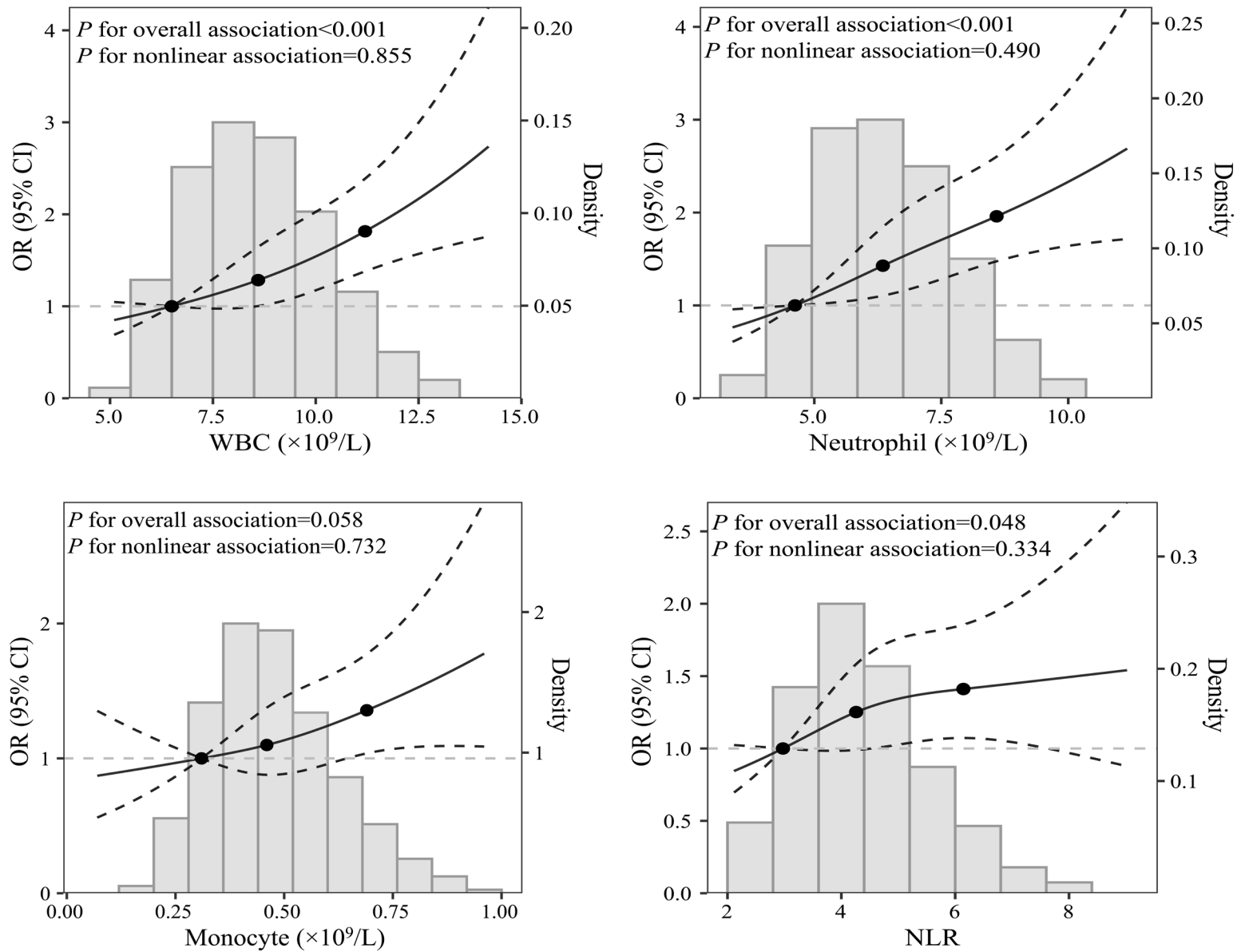
<sup>b</sup> The  $\beta$  coefficients derived from multiple linear regression models.

Models were adjusted for maternal age, gestational age at blood collection, prepregnancy BMI, education, parity, parental diabetes history, history of GDM, cigarette smoking, and alcohol drinking.



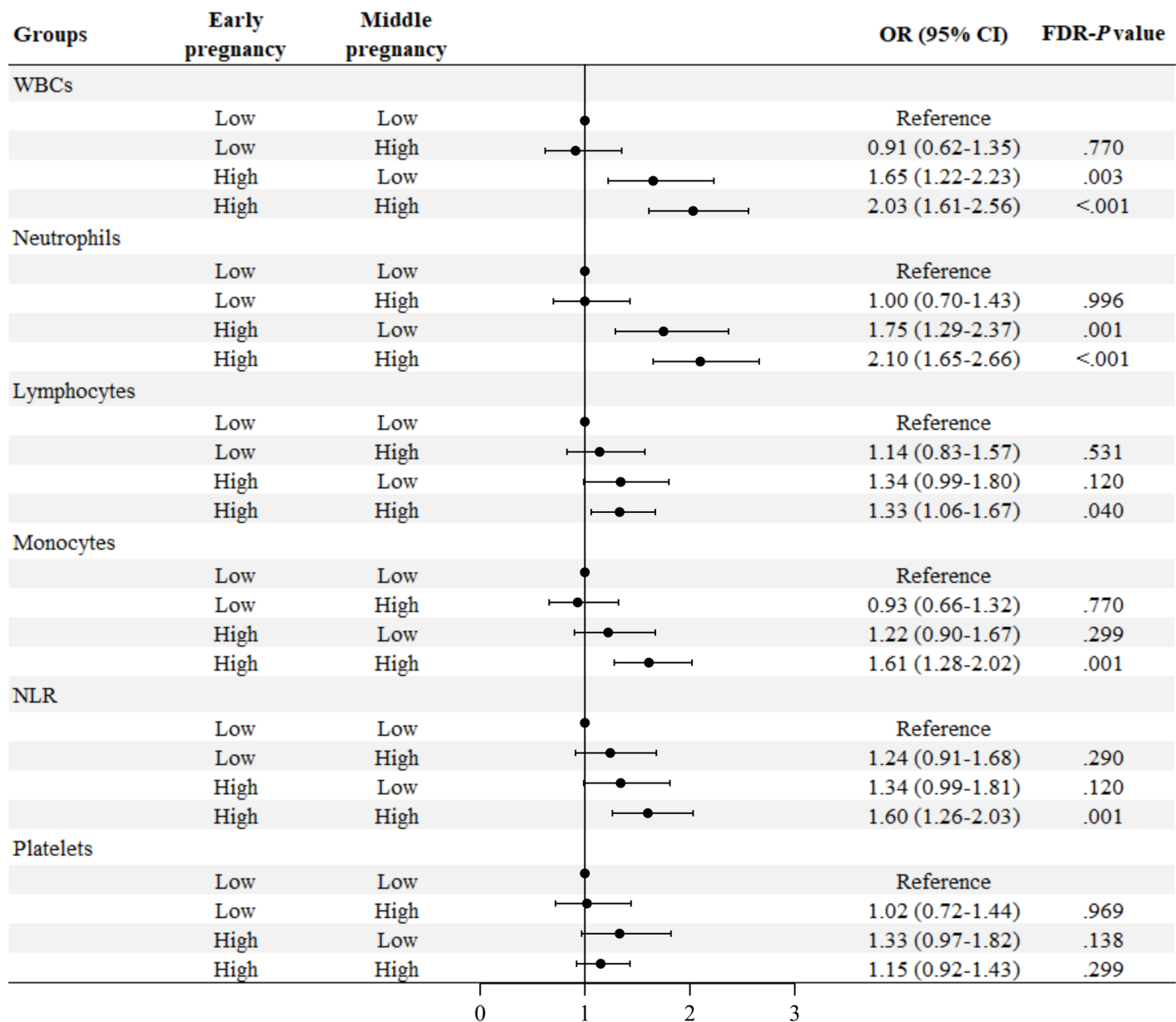


**Supplementary Figure 1. Restricted cubic splines-based modeling for the associations of inflammatory blood cell parameters in early pregnancy with GDM.** The models were adjusted for maternal age, gestational age at the time of blood collection, prepregnancy BMI, education, parity, parental diabetes history, history of GDM, cigarette smoking, and alcohol drinking. Abbreviations: BMI, body mass index; CI, confidence interval; GDM, gestational diabetes mellitus; NLR, neutrophil to lymphocyte ratio; OR, odds ratio; WBC, white blood cell.



**Supplementary Figure 2. Restricted cubic splines-based modeling for the associations of inflammatory blood cell parameters in middle pregnancy with GDM.**

The models were adjusted for maternal age, gestational age at the time of blood collection, prepregnancy BMI, education, parity, parental diabetes history, history of GDM, cigarette smoking, and alcohol drinking. Abbreviations: BMI, body mass index; CI, confidence interval; GDM, gestational diabetes mellitus; NLR, neutrophil to lymphocyte ratio; OR, odds ratio; WBC, white blood cell.

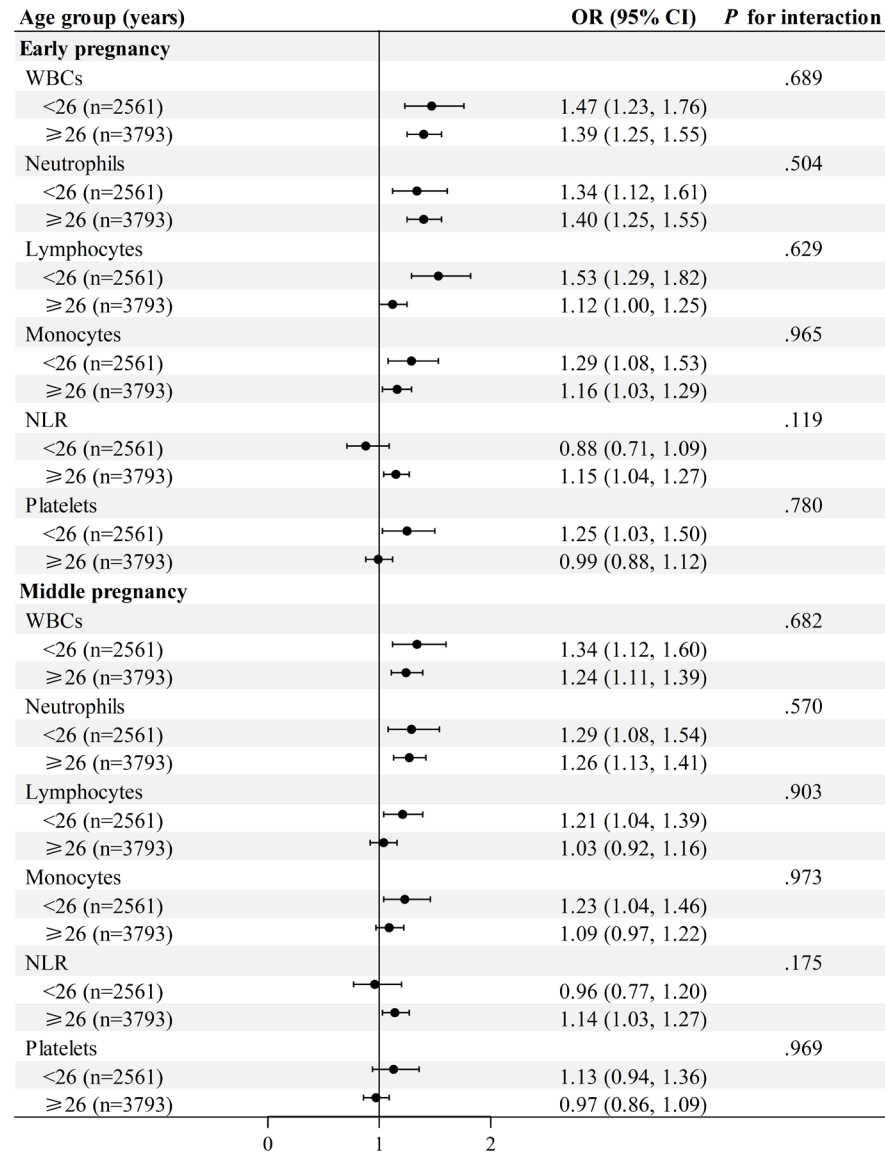


**Supplementary Figure 3. Unadjusted ORs (95% CIs) for the associations between the change patterns of inflammatory blood cell parameters from early to middle pregnancy and GDM.**

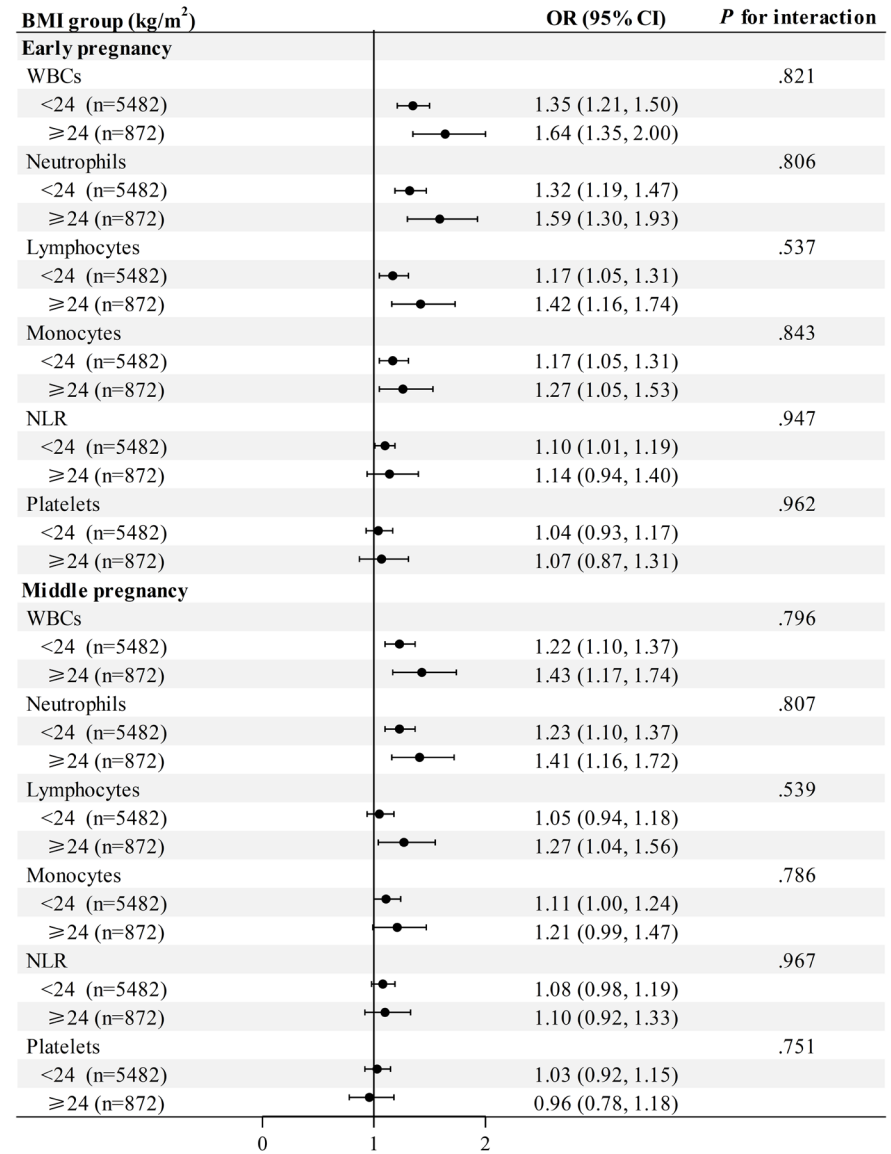
High means levels above median, while low means levels below median. Abbreviations: BMI, body mass index; CI, confidence interval; GDM, gestational diabetes mellitus; NLR, neutrophil to lymphocyte ratio; OR, odds ratio; WBC, white blood cell.

A

A1

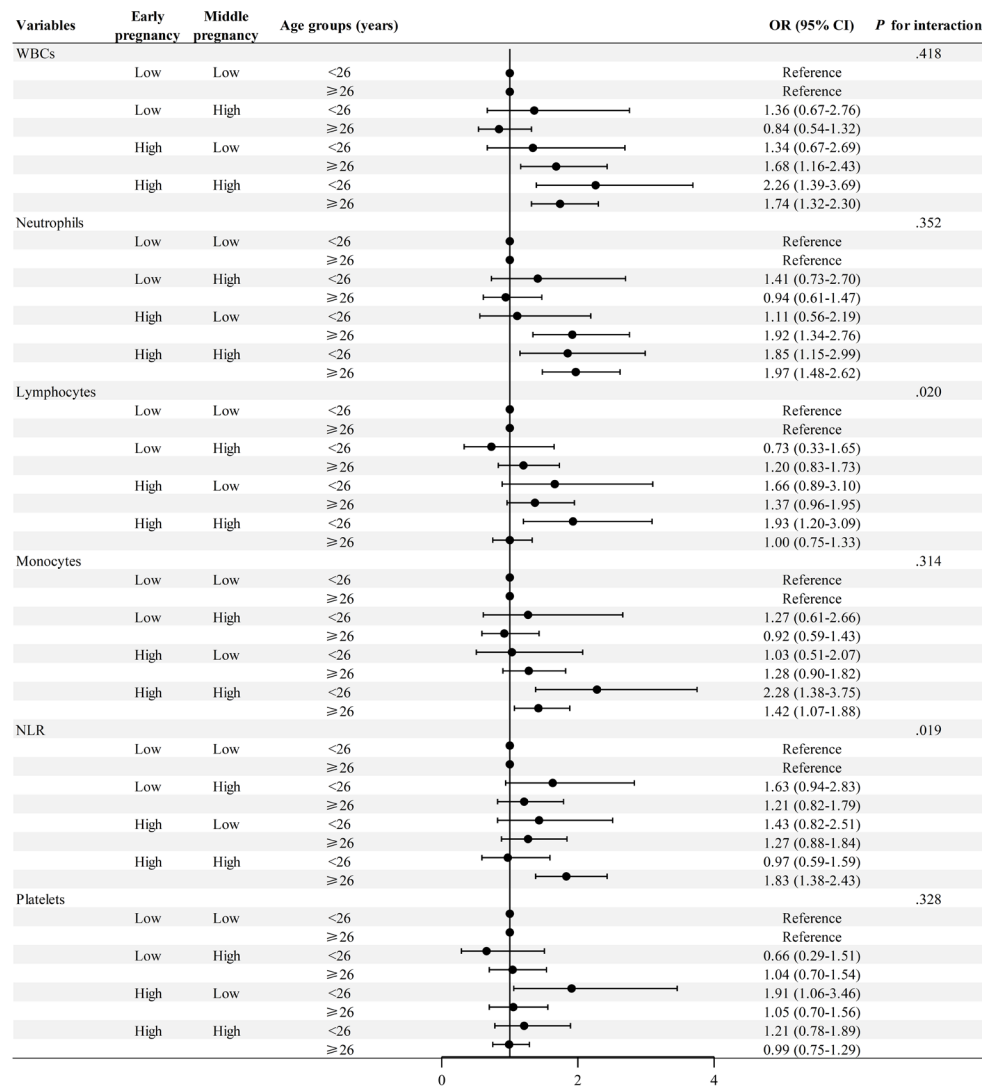


A2

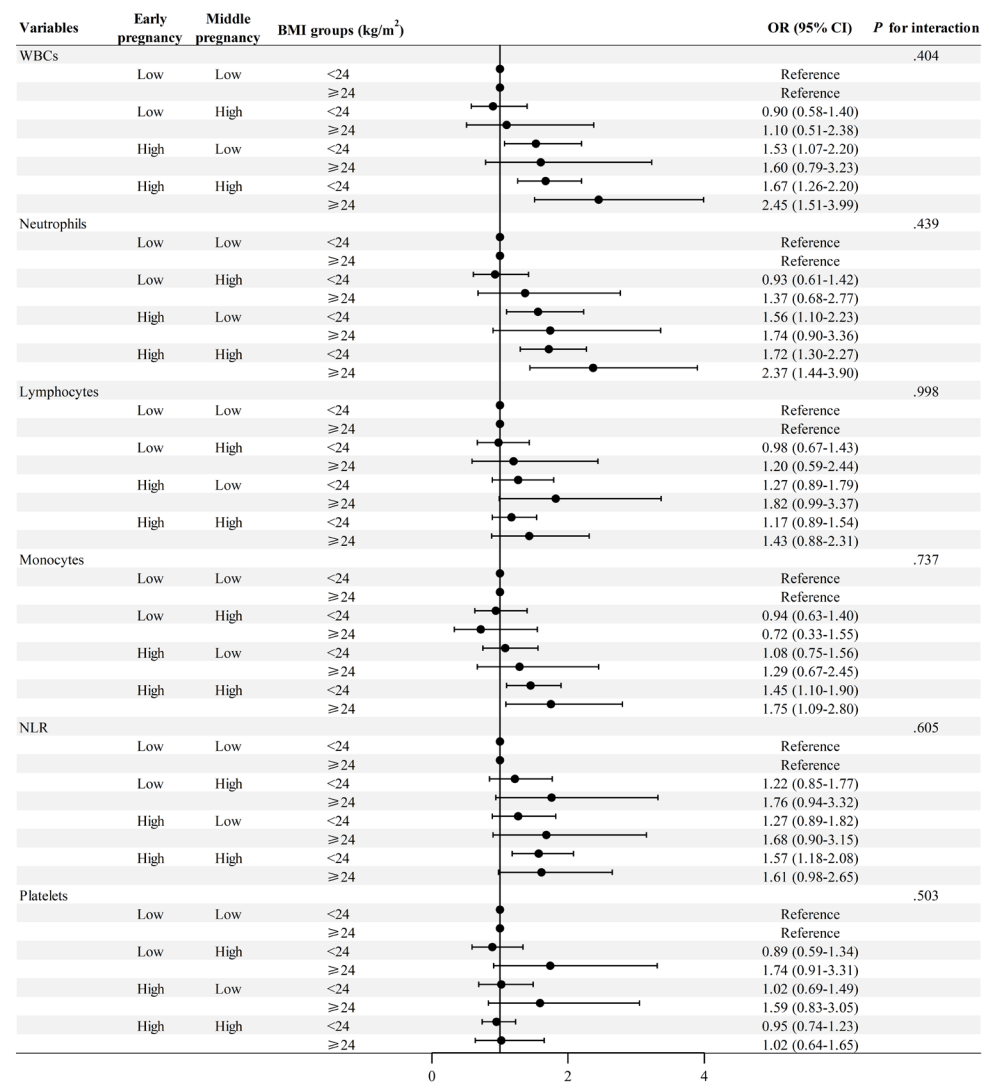


**B**

**B1**



**B2**



**Supplementary Figure 4. Subgroup analyses for the associations between inflammatory blood cell parameters and GDM.**

(A) Early and middle pregnancy. (B) The changes of inflammatory blood cell parameters from early to middle pregnancy. Both (A1) and (B1) represent the associations between inflammatory blood cell parameters and GDM stratified by age (<26 and ≥26 years). Both (A2) and (B2) represent the associations

between inflammatory blood cell parameters and GDM stratified by prepregnancy BMI ( $<24$  and  $\geq 24$  kg/m<sup>2</sup>). Models were adjusted for maternal age, gestational age at blood collection, prepregnancy BMI, education, parity, parental diabetes history, history of GDM, cigarette smoking, and alcohol drinking. High means levels above median, while low means levels below median. Abbreviations: BMI, body mass index; CI, confidence interval; GDM, gestational diabetes mellitus; NLR, neutrophil to lymphocyte ratio; OR, odds ratio; WBC, white blood cell.