

Supplementary Table 1 Demographic characteristics of the study population

	non-UAT (<i>n</i> = 19)	UAT (<i>n</i> = 19)	<i>P</i>-Value
Age (yr)	28.8 ± 1.2	30.3 ± 0.9	0.19
BMI at booking (kg/m ²)	21.9 ± 0.3	22.2 ± 0.4	0.47
Ethnicity (<i>n</i> of Han nationalities)	19 (100%)	19 (100%)	-

BMI: Body mass index; UAT: Umbilical artery thrombosis.

Supplementary Table 2 Maternal clinical data and neonatal outcomes of normal pregnant women

No.	Age (yr)	Gravidity (times)	Parity (times)	Delivery Gestational weeks	Apgar score	Umbilical cord abnormalities	Obstetric complications	Birth weight (g)
1	30	2	1	40 ⁺¹	10-10-10	-	Pregnancy combined with subclinical hypothyroidism	3890
2	25	2	0	41 ⁺¹	10-10-10	-	-	3330
3	21	1	0	38 ⁺⁵	10-10-10	Torsion for 10 cycles	-	2901
4	21	3	1	40 ⁺¹	10-10-10	Torsion for 10 cycles	Gestational diabetes mellitus	3036
5	22	1	0	40	10-10-10	Torsion for 10 cycles	Gestational diabetes mellitus	3069
6	31	2	1	40 ⁺⁵	10-10-10	-	Gestational diabetes mellitus, pregnancy induced hypertension	3330
7	32	1	0	37 ⁺⁶	10-10-10	Torsion for 20 cycles	Gestational diabetes mellitus, premature rupture of membranes	3220
8	24	3	1	39 ⁺¹	10-10-10	-	-	3750
9	36	2	1	38 ⁺³	10-10-10	Torsion for 15 cycles	Uterine fibroids in pregnancy, right	3390

							ovarian cyst	
10	26	2	1	37 ⁺⁵	10-10-10	-	-	2660
11	32	2	1	38 ⁺⁴	10-10-10	-	Gestational diabetes mellitus	2690
12	29	2	1	38 ⁺²	10-10-10	Torsion for 10 cycles	Intrahepatic cholestasis of pregnancy	3300
13	35	1	0	37	9-10-10	Torsion for 10 cycles	Gestational diabetes mellitus	2888
14	32	1	0	39 ⁺⁶	10-10-10	-	Moderate Anaemia	3580
15	29	2	1	37 ⁺²	10-10-10	Torsion for 20 cycles	-	2785
16	23	1	0	39 ⁺¹	10-10-10	-	-	3414
17	28	1	0	39 ⁺⁵	10-10-10	-	Postpartum hemorrhage	3750
18	36	1	0	39 ⁺³	10-10-10	-	-	3260
19	35	2	1	39 ⁺²	10-10-10	Torsion for 10 cycles	-	3480

Supplementary Table 3 Ultrasound indices of patients with and without umbilical artery thrombosis

Ultrasound Indices		S/D				RI				PI				PSV			
		non-UAT		UAT		non-UAT		UAT		non-UAT		UAT		non-UAT		UAT	
Group	weeks	20+	30+	20+	30+	20+	30+	20+	30+	20+	30+	20+	30+	20+	30+	20+	30+
No.	1	2.98	2.87	3.10	2.50	0.66	0.65	0.67	0.61	1.08	1.00	1.22	1.01	33.0	43.1	30.4	35.1
	2	2.68	2.70	1.76	3.60	0.63	0.62	0.43	0.72	0.91	0.97	0.58	1.42	37.9	53.8	27.8	47.9
	3	2.70	2.70	3.31	1.97	0.63	0.63	0.69	0.49	0.98	0.99	1.18	0.66	44.2	50.6	38.9	52.7
	4	3.30	2.20	3.70	1.82	0.69	0.55	0.73	0.45	1.20	0.96	1.20	0.62	38.6	50.6	37.9	59.1
	5	3.14	2.70	2.50	2.46	0.68	0.63	0.59	0.59	1.07	1.00	0.96	0.87	31.4	55.4	35.5	46.8
	6	3.10	2.38	2.50	2.90	0.68	0.56	0.60	0.65	1.11	0.82	0.89	0.99	33.9	56.9	40.9	54.4
	7	2.98	2.20	3.20	2.46	0.66	0.55	0.69	0.59	1.04	0.78	1.21	0.83	43.4	53.3	31.9	45.0
	8	2.62	2.90	2.61	2.09	0.62	0.65	0.62	0.52	0.97	1.15	0.89	0.73	42.0	44.4	44.6	67.9
	9	2.70	2.16	3.80	2.80	0.63	0.54	0.74	0.64	0.99	0.74	1.43	1.16	32.4	54.8	43.9	53.3
	10	2.90	2.90	2.39	1.95	0.65	0.66	0.58	0.49	1.17	1.02	0.87	0.69	42.9	52.7	26.0	55.5
	11	3.80	2.88	2.49	1.59	0.73	0.65	0.60	0.37	1.25	0.99	0.85	0.47	31.9	51.1	32.5	68.8
	12	2.70	2.60	2.50	2.30	0.64	0.62	0.61	0.56	1.01	0.99	1.05	0.79	39.0	46.3	25.5	54.3

13	2.90	2.90	3.30	1.97	0.65	0.66	0.69	0.47	1.01	1.04	1.15	0.62	29.6	54.7	34.1	53.9
14	2.50	2.90	3.40	1.90	0.60	0.66	0.70	0.48	0.89	0.99	1.38	0.74	37.2	44.5	26.9	48.4
15	2.47	2.90	3.30	2.10	0.60	0.65	0.70	0.53	0.93	1.15	1.22	0.76	28.2	36.7	46.4	87.3
16	2.89	2.50	2.13	2.20	0.65	0.60	0.53	0.54	1.02	0.90	0.77	0.78	51.5	45.8	33.1	57.9
17	2.68	2.20	2.80	2.00	0.63	0.54	0.65	0.51	0.96	0.74	1.05	0.73	26.2	46.4	30.9	75.3
18	3.30	2.40	2.20	2.10	0.70	0.58	0.54	0.52	1.16	0.84	0.77	0.77	32.0	47.1	24.9	39.5
19	2.18	2.00	3.23	2.50	0.54	0.50	0.69	0.60	0.78	0.66	1.15	0.94	29.2	36.9	34.1	52.4

UAT: Umbilical artery thrombosis; S/D: Systolic-diastolic duration ratio; RI: Resistance index; PI: Pulsatility index; PSV: Peak systolic velocity.