

Supplementary Table 1 The classification of chorionicity and monozygotic vs dizygotic twins.

Classification	Before matching			After matching		
	ART (n=2024)	non-ART (n=2492)	<i>p</i>	ART (n=1850)	non-ART (n=1638)	<i>p</i>
Twins			<0.01			<0.01
Dizygotic twins	1976(97.6)	2208(88.6)		1804(97.5)	1456(88.9)	
Monozygotic twins	48(2.4)	284(11.4)		46(2.5)	182(11.1)	
Chorionicity			<0.01			<0.01
DCDA of Dizygotic twins	1976(97.6)	2208(88.6)		1804(97.5)	1456(88.9)	
DCDA of Monozygotic twins	30(1.5)	72(2.9)		30(1.6)	54(3.3)	
MCDA	18(0.9)	202(8.1)		16(0.9)	124(7.6)	
MCMA	0(0.0)	8(0.3)		0(0.0)	4(0.2)	
Conjoined twins	0(0.0)	2(0.1)		/	/	

ART: assisted reproductive technology; DCDA: dichorionic-diamniotic; MCDA: monochorionic-diamniotic; MCMA: monochorionic-monoamniotic.

Supplementary Table 2 Risk of neonatal complications associated with ART in twin pregnancies.

Outcomes	Before matching					After matching				
	ART (n=2024)	non-ART (n=2492)	RR (95% CI)	aRR ^δ (95% CI)	<i>P</i>	ART (n=1850)	non-ART (n=1638)	RR (95% CI)	aRR ^ε (95% CI)	<i>P</i>
Neonatal weight (g)	2517.6±468.2	2387.7±487.7			<0.01	2518.3±471.2	2380.5±480.4			<0.01
Unknown	/	21(0.8)				/	1(0.0)			
SGA	279(13.8)	426(17.1)	0.87 (0.78-0.97)	0.87 (0.77-0.97)	0.02	247(13.4)	288(17.6)	0.84 (0.74-0.94)	0.84 (0.75-0.95)	<0.01
3-10%	150(7.4)	249(10.0)				132(7.1)	165(10.1)			
<3%	129(6.4)	177(7.1)				115(6.2)	123(7.5)			
Unknown	/	21(0.8)				/	1(0.0)			
LGA	28(1.4)	27(1.1)	1.27 (0.75-2.16)	1.43 (0.80-2.55)	0.23	27(1.5)	17(1.0)	1.41 (0.77-2.60)	1.41 (0.76-2.64)	0.28
Unknown	/	21(0.8)				/	1(0.0)			
LBW	865(42.7)	1331(53.4)	0.69 (0.63-0.76)	0.80 (0.69-0.93)	<0.01	774(41.8)	866(52.9)	0.70 (0.62-0.78)	0.70 (0.62-0.78)	<0.01
1500-2500g	762(37.6)	1141(45.8)				689(37.2)	762(46.5)			
<1500g	103(5.1)	190(7.6)				85(4.6)	104(6.4)			
Unknown	/	21(0.8)				/	1(0.0)			
Macrosomia	1(0.0)	0(0.0)	/	/	/	1(0.1)	0(0.0)	/	/	/
Unknown	/	21(0.8)				/	1(0.0)			

PTB	896(44.3)	1508(60.5)	0.51 (0.46-0.58)	0.57 (0.50-0.65)	<0.01	820(44.3)	950(58.0)	0.58 (0.50-0.66)	0.59 (0.51-0.68)	<0.01
Unknown	2(0.0)	10(0.4)				/	/			
NICU admission	891(44.0)	1261(50.6)	0.77 (0.68-0.86)	1.08 (0.92-1.27)	0.34	808(43.7)	809(49.4)	0.80 (0.70-0.91)	0.81 (0.70-0.92)	<0.01
Stillbirths	2(0.1)	20(0.8)	0.38 (0.19-0.75)	0.41 (0.20-0.83)	0.01	2(0.1)	10(0.6)	0.42 (0.20-0.90)	0.42 (0.20-0.90)	0.03
Apgar 1 minute			1.54 (1.17-2.01)	1.34 (0.99-1.83)	0.58			1.40 (1.03-1.91)	1.46 (1.07-1.98)	0.02
0-3	11(0.5)	39(1.6)				11(0.6)	21(1.3)			
4-7	28(1.4)	41(1.6)				23(1.2)	25(1.5)			
8-10	1985(98.1)	2412(96.8)				1816(98.2)	1592(97.2)			
Neonatal sex			1.04 (0.93-1.18)	1.03 (0.91-1.17)	0.64			1.01 (0.89-1.16)	1.01 (0.89-1.16)	0.84
Male	1037(51.2)	1302(52.2)				957(51.7)	851(52.0)			
Female	987(48.8)	1189(47.7)				893(48.3)	786(48.0)			
Unknown	/	1(0.0)				/	1(0.0)			

Data are presented as mean $\pm$ SD and n (%)

ART: assisted reproductive technology; SGA: small for gestational age; LGA: large for gestational age; LBW: low birthweight; PTB: preterm birth; NICU: neonatal intensive care unit; RR: relative risk; aRR: adjusted relative risk; SD: Standard deviation.

^{δ/ε}Adjusted for confounding factors