

On-line Table 1: Characteristics of the study population^a

Characteristics	No. (%)
Pregnancy trimester during MR imaging exposure	
First	8 (6.1)
Second	28 (21.4)
Third	95 (72.5)
No. of MRIs during pregnancy	
1	114 (85)
2	16 (12)
3	1 (3)
MR imaging protocol	
Maternal CNS ^b	20 (14.9)
Maternal abdomen ^c	25 (18.7)
Maternal MSK ^d	17 (12.7)
Fetal CNS	68 (50.7)
Fetal body	4 (3.0)
Indication for MR imaging	
Maternal CNS	22 (16.5)
Maternal MSK	11 (8.3)
Maternal abdomen	26 (19.5)
Fetal CNS	47 (35.3)
Fetal body	1 (0.75)
Previous pregnancy abnormalities	20 (15.0)
Amniotic fluid abnormalities	2 (1.5)
Other	4 (3.0)
Gestational age during MR imaging exposure (mean) (IQR)(wk)	31 (26–33)

Note:—MSK indicates musculoskeletal; IQR, interquartile range.

^a Results are shown as number (%) unless indicated otherwise.

^b Maternal CNS protocol includes brain, sella turcica, and eye sockets.

^c Maternal abdomen protocol includes the appendix, MR enterography, abdominal vascular imaging in pregnancy, and MR cholangiopancreatography.

^d Maternal MSK protocol includes cervical/thoracic/lumbar spine, pelvic, hip joint, and thorax.

On-line Table 2: Characteristics of the study and control groups—mothers^a

Characteristic	All Cohort (n = 902)		P
	Study Group (Exposed) (n = 131)	Control Group (Nonexposed) (n = 771)	
Age at delivery (mean) (yr)	32.1 ± 4.30	32.01 ± 4.95	.827
Parity (mean) (range)	1.68, 0–10	1.14, 0–8	<.001 ^b
Chronic comorbidities ^c			
Hypothyroidism	13 (9.9%)	58 (7.5%)	.348
Diabetes mellitus	8 (6.1%)	10 (1.3%)	<.001 ^b
Asthma	2 (1.5%)	25 (3.2%)	.289
Hypertension	9 (6.9%)	50 (6.5%)	.87
Chronic medication ^d			
Thyroid hormone replacement	13 (9.9%)	54 (7.0%)	.358
Steroids	2 (1.5%)	6 (0.8%)	.413
Antihypercoagulability	11 (8.4%)	30 (3.9%)	.041 ^b
Antihypertensive	9 (6.9%)	9 (1.2%)	<.001 ^b
Antidiabetic agents	2 (1.5%)	10 (1.3%)	.834
Asthma medication	2 (1.5%)	15 (1.9%)	.766
Progesterone replacement	2 (1.5%)	8 (1.0%)	.632
Mode of conception			
Spontaneous	114 (87.0%)	696 (90.3%)	.506
Intrauterine insemination	6 (4.6%)	23 (3.0%)	
In vitro fertilization	11 (8.4%)	52 (6.7%)	
Conditions diagnosed during pregnancy ^e			
Diabetes mellitus	15 (11.5%)	64 (8.3%)	.238
Thrombocytopenia	5 (3.8%)	123 (16.0%)	<.001 ^b
Hypertension	7 (5.3%)	25 (3.2%)	.25
Mode of delivery			
Vacuum delivery	6 (4.6%)	40 (5.2%)	.75
Forceps delivery	2 (1.5%)	4 (0.5%)	.217
Elective cesarean delivery	25 (19.1%)	85 (11.0%)	.027 ^b
Emergency cesarean delivery	24 (18.3%)	91 (11.8%)	.035 ^b

^a Results are shown as number (%) unless indicated otherwise.

^b P value < .05.

^c The most prevalent conditions in the cohort up to the delivery date.

^d The most prevalent medications in the cohort up to the delivery date.

^e The most prevalent conditions in the cohort.

On-line Table 3: Characteristics of the study and control groups—fetuses/neonates^a

Characteristic	All Cohort (n = 902)		P
	Exposed (Study) Group (n = 131)	Nonexposed (Control) Group (n = 771)	
Fetus			
Female sex	58 (44.3%)	392 (50.8%)	.155
Prenatal sonography findings before MR imaging			
IUGR	3 (2.3%)	10 (1.3%)	.396
Amniotic fluid abnormalities	6 (4.6%)	18 (2.3%)	.156
Obstetric complications			
Preterm premature rupture of membranes	1 (0.8%)	1 (0.1%)	.20
Failure to descend	6 (4.6%)	15 (1.9%)	.081
Decelerations in labor	6 (4.6%)	55 (7.1%)	.306
True umbilical cord knot	1 (0.8%)	9 (1.2%)	.657
Prolonged second stage	4 (3.1%)	25 (3.2%)	.909
Postpartum hemorrhage	2 (1.5%)	7 (0.9%)	.521
Neonatal outcome			
Gestational age at delivery (mean) (range) (wk)	38.41, 31–43	39.01, 33–43	<.001 ^b
Birth weight (mean) (g)	3069.95 ± 535.69	3216.6 ± 446.07	.002 ^b
Weight percentile (mean) (median) (IQR)	50.08, 49, 28–76	54.42, 56, 34–76	.08
APGAR 1 (mean) (range)	8.8, 4–9	8.9, 2–9	.12
APGAR 5 (mean) (range)	9.86, 6–10	9.96, 4–10	.04 ^b
Neonatal period (No.) (%)			
Normal hearing screening test findings	119 (99.2%)	770 (99.9%)	.183

Note:—IUGR indicates intrauterine growth retardation.

^a Results are shown as No. (%) unless indicated otherwise.

^b P value < .05.

On-line Table 4: Neurodevelopmental assessment by the VABS^a

Characteristic	Cohort Matched by Day and Mode of Delivery, 1:1 Ratio (n = 192)		P
	Exposed (Study) Group (n = 96)	Nonexposed (Control) Group (n = 96)	
Communication	108.84 ± 13.54	109.1 ± 12.47	.888
Daily living skills	109.51 ± 12.07	108.28 ± 9.82	.437
Socialization	112.98 ± 13.28	106.47 ± 11.08	<.01 ^b
Motor skills	105.09 ± 10.6	104.42 ± 11.43	.642
Sum	436.43 ± 40.05	428.27 ± 34.86	.118
Adaptive behavior composite	110.79 ± 11.99	108.18 ± 10.64	.098
Percentile rank (mean) (IQR)	70.41, 56–87	67.1, 53–86	>.999

^a Results are shown as means unless indicated otherwise.

^b P value < .05.

On-line Table 5: Subgroup analysis of fetuses exposed to MR imaging^a

Characteristic	Exposure in Different Trimesters					No. of MRIs during Pregnancy					MR Imaging Protocol				
	1st	2nd	3rd	P	1	>1	P	Yes	Other	P	Yes	Other	P		
Communication	104.33 ± 12.93	107.17 ± 15.46	109.69 ± 13.23	.543	109.81 ± 13.65	102.92 ± 11.81	.088 ^b	110.53 ± 12.00	107.2 ± 15.02	.218	111.75 ± 16.85	108.41 ± 12.93	.368		
Daily living skills	105 ± 4.78	107.17 ± 14.78	110.46 ± 11.59	.366	110.19 ± 12.35	105.23 ± 8.06	.164	110.42 ± 9.95	108.63 ± 13.88	.455	111.88 ± 12.84	109.13 ± 11.84	.402		
Socialization	104.5 ± 7.07	114.61 ± 13.53	112.91 ± 13.65	.272	113.31 ± 13.94	108.62 ± 8.31	.24	114.04 ± 13.33	111.29 ± 13.5	.303	112.00 ± 11.15	112.85 ± 13.853	.818		
Motor skills	94.5 ± 10.71	106.28 ± 11.03	105.91 ± 10.31	.037 ^b	105.81 ± 10.87	101.85 ± 9.15	.214	106.51 ± 9.19	104 ± 12.09	.239	106.88 ± 9.91	105.01 ± 10.88	.525		
Sum	408.33 ± 29.33	435.22 ± 46.76	438.97 ± 38.94	.198	439.14 ± 41.6	418.62 ± 23.19	.086	441.49 ± 33.71	431.12 ± 46.028	.195	442.50 ± 40.56	435.40 ± 40.32	.519		
Adaptive behavior composite	102.33 ± 9.03	110.33 ± 13.73	111.58 ± 11.74	.193	111.6 ± 12.45	105.46 ± 7.29	.087 ^b	112.38 ± 10.2	109.12 ± 13.7	.175	112.56 ± 12.19	110.49 ± 12.08	.53		
Birth weight (g)	3105.25 ± 492.83	3046 ± 621.63	3076.58 ± 512.08	.949	3060.73 ± 531.83	3147.82 ± 541.86	.53	3156.20 ± 508.71	2980.94 ± 545.11	.077 ^b	2904.60 ± 414.5	3101.47 ± 546.21	.067 ^b		
Weight percentile (mean) (IQR)	46, 22–75	47.82, 21.25–79	51.85, 31–76.5	.69	50.3, 30–76	53, 12.5–82	.739	53.17, 31–77	47.92, 23.25–75.75	.304	41.85, 23.25–72.5	52.2–76	.112		
APGAR 1 (mean) (range)	8.88, 8–9	8.54, 4–9	8.88, 8–9	.903	8.81, 4–9	8.76, 7–9	.5	8.88, 7–9	8.72, 4–9	.335	8.95, 8–9	8.78, 4–9	.254		
APGAR 5 (mean) (range)	10, 10–10	9.72, 6–10	9.88, 9–10	.488	9.87, 6–10	9.82, 8–10	.815	9.90, 8–10	9.83, 6–10	.48	9.9, 9–10	9.86, 6–10	.915		
Normal hearing screening test findings (No.) (%)	8 (100)	26 (96)	87 (100)	.287	106 (100)	15 (94)	.13	64 (98)	57 (100)	>.999	19 (100)	102 (99)	>.999		

^a Results are shown as means unless indicated otherwise.

^b P value < .05.