

Placental quantitative susceptibility mapping and T2* characteristics for predicting birth weight in healthy and high-risk pregnancies

ELECTRONIC SUPPLEMENTARY MATERIAL

Supplementary Table 1: Comparison of mean placental susceptibility and T2* between high-risk groups after adjusting for gestational age at MRI

	Parameters	N	Mean	p	Mean	p
			Susceptibility (ppb)		T2* (ms)	
Primary Analysis	Control	87	-0.25	0.928	105	0.013
	High-risk	39	-0.40		93	
Subgroup Analysis (Control vs. High-risk)	Control	87	-0.21	0.853	107	0.906
	CHTN	8	0.33		106	
	Control	87	-0.22	0.180	107	0.473
	GHTN	8	-4.43		101	
	Control	87	-0.20	0.181	107	0.009
	PEC	7	4.22		82	
	Control	87	-0.24	0.808	105	0.021
	FGR	16	-0.78		90	

Abbreviations: N: Number of examinations; ppb: part per billion; CHTN: Chronic Hypertension; GHTN: Gestational Hypertension; PEC: Pre-eclampsia; FGR: Fetal Growth Restriction. High-risk groups include CHTN, GHTN, PEC, and FGR.

Supplementary Table 2: Sensitivity Analysis of Mean Differences in Placental Susceptibility and T2* Values Between Healthy Control and High-risk Groups Across Various Scan Selection

	Mean Susceptibility			Mean T2*		
	Control	High-risk	P-value	Control	High-risk	P-value
All Scans	N = 87	N = 39		N = 87	N = 39	
Mean (SD)	-0.21 (8.04)	-0.5 (8.41)	0.849	107.38 (30.55)	87 (33.2)	0.001
Single Scan Model 1	N = 68	N = 37		N = 68	N = 37	
Mean (SD)	0.65 (6.06)	-1.34 (7.2)	0.136	114.69 (29.44)	87.09 (34.1)	<0.000
Single Scan Model 2	N = 68	N = 37		N = 68	N = 37	
Mean (SD)	-0.25 (8.85)	-0.58 (8.63)	0.857	102.48 (28.91)	85.93 (33.73)	0.009

The primary analysis was conducted using the entire study cohort with all available scans. Sensitivity analysis employed two more models to analyze the cohort, each adopting a unique approach to scanned data. Model 1 focused on a single scan for each participant, utilizing only the first scan of subjects with two scans. Model 2, also used a single scan for each participant, considering the second scan from those with two scans. Collectively, these models offered a thorough and diverse analysis, encompassing various perspectives and scenarios.