

Title: Effect of Maternal Asthma on Retinopathy of Prematurity



PRESENTER:
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BACKGROUND:

- ROP is a major cause of childhood blindness.
- Limited data on risk factors outside of GA and BW.
- Asthma worsens with pregnancy and has been associated with multiple diseases in offspring.
- No current data on its role in ROP.

METHODS

- Retrospective observational study
- Records from the University of Colorado ROP Screening Registry.
- Screened between January 2006 and June 2023.
- Odds Ratios (OR) and 95% confidence intervals (CI) are presented from multinomial logistic regression models with ROP measures (Stage, zone, ROP type and ROP treatment) as the outcome and history of maternal asthma as the primary explanator variable.
- Multivariable analysis was performed to control for BW and GA.

RESULTS

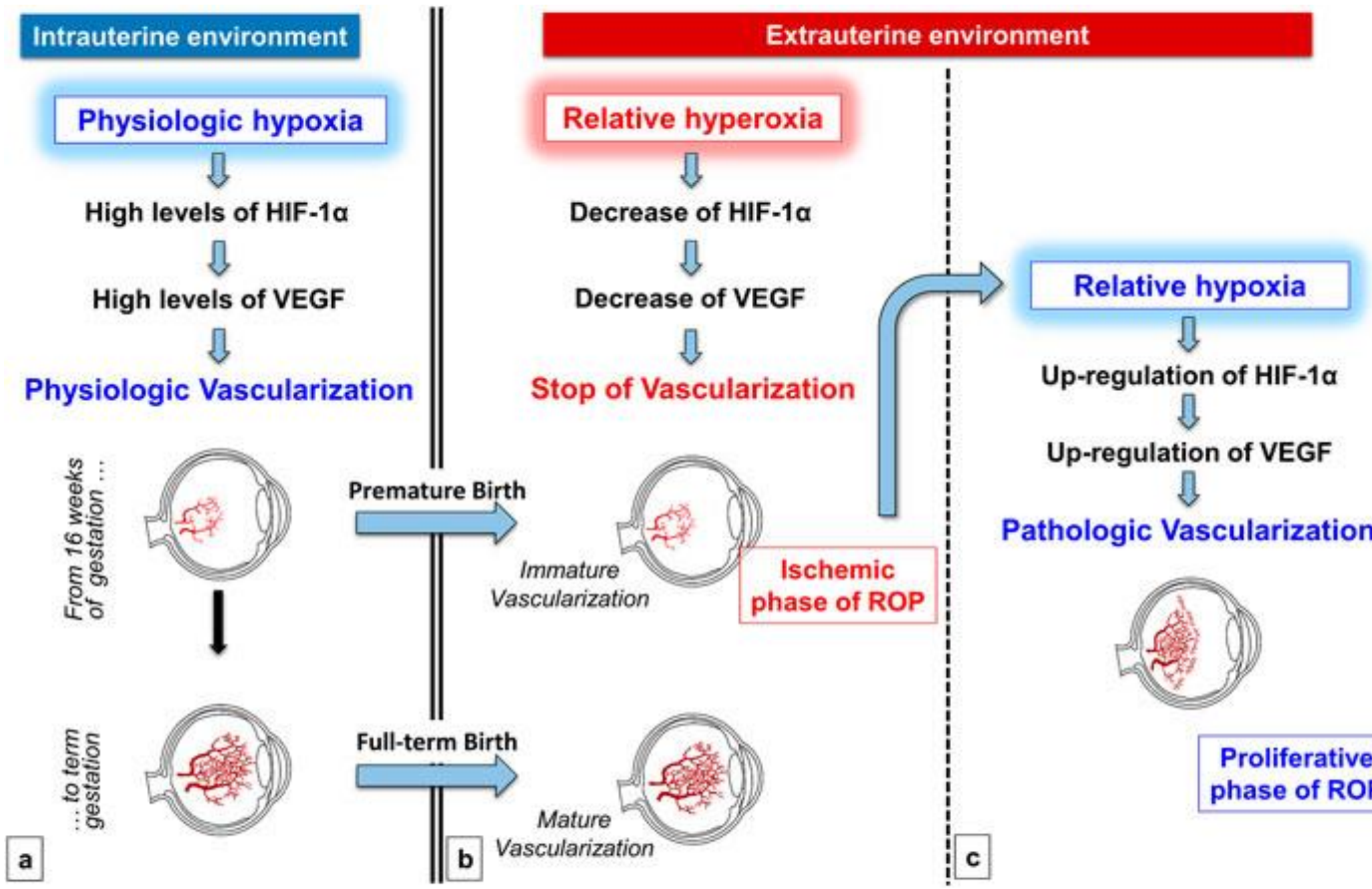
Table 1: Demographics for Maternal Asthma and GA/BW.

	n	GA (days)	p-value	BW (grams)	p-value
All babies	2,132	202 (17.7)	-	2136 (346)	-
Maternal age, mean (SD)	28.9 (6.4)	-	-	-	-
Maternal asthma	283 (13.2%)	202 (17.8)		1,123 (348)	
Yes	1,847 (86.5%)	202 (17.3)	0.914	1,105 (340)	0.4016
No	6 (0.3%)	188 (15.7)	5	994 (364)	
Unknown*					

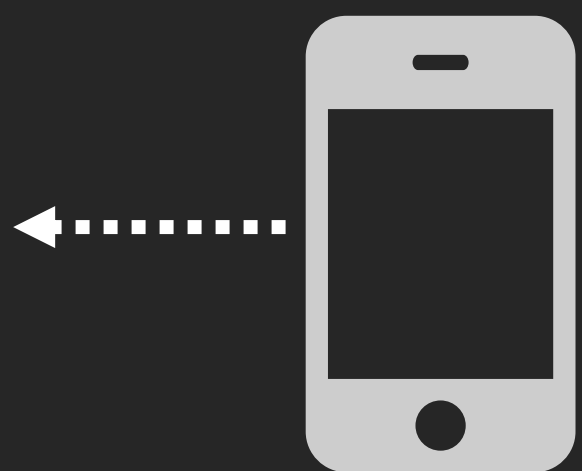
Maternal asthma is linked to more advanced ROP.

Table 2: Maternal Asthma and ROP Outcomes.

	N=2,142 n (%)	Maternal Asthma n (%)	OR (95%CI)	p-value
ROP Stage				
0	1,402 (66.4%)	177 (12.7%)	Reference	-
1	175 (8.3%)	33 (19.2%)	1.77 (1.15, 2.74)	0.01
2	283 (13.4%)	27 (9.6%)	0.89 (0.55, 1.44)	0.63
3	244 (11.6%)	39 (16.0%)	1.85 (1.12, 3.04)	0.02
4	8 (0.4%)	4 (50.0%)	11.1 (2.50, 48.9)	<0.01
ROP Type				
None	1,432 (66.8%)	180 (12.6%)	Reference	-
Type 1	123 (5.7%)	20 (16.4%)	2.12 (1.13, 3.98)	0.02
Type 2	146 (6.8%)	25 (17.1%)	2.06 (1.18, 3.58)	0.01
Low Grade	441 (20.6%)	58 (13.3%)	1.26 (0.87, 1.81)	0.22
Treatment				
Yes	146 (6.8%)	26 (17.9%)	1.78 (1.06, 2.97)	0.03
No	1,985 (93.2%)	257 (13.0%)	Reference	-



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