

Low birth weight (<2500 gram) at late preterm and term: is it about gestational age, birth weight or birth weight percentile ?

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OBJECTIVE AND DESIGN

We aimed to compare pregnancy outcome of low birth weight newborns (1500-2500 grams) between late preterm (34+0/7-36+6/7, LPT) and term deliveries.

Retrospective cohort, 08/2007-12/2012.

Overall, 44,263 parturients.

Exclusion criteria: Birth weight >2500 grams or < 1500 grams, chromosomal or structural anomalies, elective cesarean delivery.

Study population: 1486 women. 617 (41.5%) delivered at LPT and 869 (58.5%) delivered at term.

TABLE 1 – DEMOGRAPHICS

Parameter	LPT (n=617)	TERM (n=869)	p value
Birth weight	2186±228	2328±154	<0.001
Birth weight %	27.8±18.0	6.6±5.2	<0.001
Male newborn	49.6%	39.1%	<0.001
SGA	9.1%	80.1%	<0.001

TABLE 2 – OUTCOME

Parameter	LPT (N=617)	Term (N = 869)	P value
OVD, n(%)	46 (7.5)	94 (10.8)	0.03
CD for NRFHR, n(%)	22 (29.7)	48 (57.8)	<0.001
Chronic HTN, n(%)	18 (2.9)	10 (1.2)	0.01
Mild PET, n(%)	32 (5.2)	24 (2.8)	0.02
Severe PET, n(%)	28 (4.5)	14 (1.6)	0.001
HELLP, n(%)	6 (1.0)	1 (0.1)	0.02
Chorioamnionitis, n(%)	3 (0.5)	0 (0)	0.04
Meconium, n(%)	19 (3.1)	68 (7.8)	<0.001
Oligohydramnios, n(%)	22 (3.6)	90 (10.4)	<0.001
IVH, n(%)	4 (0.6)	0 (0.0)	0.02
Sepsis, n(%)	140 (22.7)	60 (6.9)	<0.001
NEC, n(%)	3 (0.5)	0 (0)	0.04
RDS, n(%)	8 (1.3)	0 (0)	0.001
TTN, n(%)	23 (3.7)	4 (0.5)	<0.001
Respiratory distress, n(%)	59 (9.6)	25 (2.9)	<0.001
Mechanical ventilation, n(%)	21 (3.4)	4 (0.5)	<0.001
CPAP, n(%)	5 (0.8)	0 (0)	0.008
Composite, n(%)	218 (35.3)	141 (16.2)	<0.001

LOGISTIC REGRESSION

Adjusting for birth weight: LPT was independently associated with adverse neonatal composite outcome (OR 2.4, 95% CI 1.8-3.1).

Adjusting for birth weight percentile: LPT was associated with adverse composite outcome (OR 3.1, 95% CI 2.4-4.0)

CONCLUSION

Our data suggests that in deliveries complicated by low birth weight (<2500 grams), lower gestational week at delivery is independently associated with increased neonatal morbidity