

Multivariate model to predict successful vaginal delivery

Variable	Odds ratio (95% CI)	p value
Cervical Length	3.3 (1.6-6.6)	0.001
Previous vaginal birth	5.2 (1.3-20)	0.018
BMI<30	0.97 (0.3-3)	0.95
Age<30	0.56 (0.18-1.7)	0.31
Birth Weight	0.99 (0.99-1)	0.15

373 The donor twin survival score (dtss): a model to predict donor twin survival following laser photocoagulation for twin-to-twin transfusion syndrome complicated by placental insufficiency

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OBJECTIVE: Placental insufficiency/intrauterine growth restriction (IUGR) of the donor twin is a known risk factor for donor twin demise (DTD) after selective fetoscopic laser photocoagulation (SFLP). The predictive value of estimated donor placental share (DPS) at the time of SFLP is unknown. We hypothesized that higher DPS would significantly predict increased donor twin survival (DTS) and that this effect would be amplified in the absence of IUGR.

STUDY DESIGN: All TTTS patients treated with SFLP in a single fetal care center were identified via retrospective electronic chart review. Two providers estimated placental share at the time of SFLP using a combination of ultrasound and fetoscopic information. A composite DTSS (range 0-3) was defined as zero if appropriate estimated fetal weight (EFW) and DPS >15%, one point for either EFW 3-10% and/or DPS ≤ 15%, and two points if EFW < 3%. Odds Ratios (OR) and Wald 95% Confidence Intervals are reported for DTS for IUGR, DPS, both IUGR and DPS, and the DTSS. The trend of increased probability of DTD with increasing DTSS was evaluated with the Cochran-Armitage Trend Test.

RESULTS: A total of 79 twin pregnancies treated with SFLP were evaluated. The rate of DTS was 77%. 67% (n=53) of donor twins had an EFW <10%. Lower DPS was associated with lower probability of DTS (p=0.001). Among donor twins with EFW <3%, DPS <15% presented significantly greater odds of DTD compared donor twins with > 15% DPS (OR: 5.7, 1.1-28.5%). Rate of DTD differed significantly across the composite score (p=0.01), and from lowest (0) to highest (3) value of the DTSS had a significantly increasing trend in rate of DTD (13%, 13%, 23% and 50%, Trend Test p=0.01). **CONCLUSION:** A small DPS is a significant predictor of DTD. Furthermore, the proposed composite DTSS identifies pregnancies at increasing risk for DTD following SFLP. The DTSS score can be used to enhance patient counseling on the chance of DTS after SFLP.

374 Oligohydramnios: risks of stillbirth and infant death

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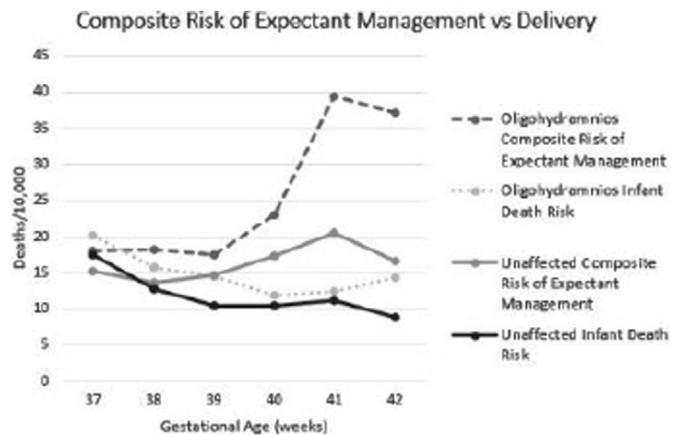
OBJECTIVE: To examine fetal & infant mortality by gestational age at term stratified by the presence or absence of oligohydramnios.

STUDY DESIGN: A retrospective cohort study was conducted of singleton, non-anomalous pregnancies from the 2005-2008 California Birth Registry with pregnancies affected and unaffected by oligohydramnios. For each week of term gestation, the risk of mortality associated with delivery was compared with composite mortality risk of expectant management. The expectant management measure included stillbirth and infant death. This expectant

management risk was calculated to estimate the composite mortality risk with remaining pregnant an additional week by combining the risk of stillbirth during the additional week of pregnancy and infant death risk following delivery the next week.

RESULTS: Our search identified 1,891,780 births of which 46,699 (2.5%) were affected by oligohydramnios. The risk of fetal and infant mortality with expectant management is greater than the risk of infant death in pregnancies affected by oligohydramnios beginning at 38 weeks (25.2 vs 10.4 deaths/10,000, p<0.05) though the magnitude of difference decreases until 41 weeks when it again increases. The risk of fetal and infant mortality with expectant management among pregnancies affected by oligohydramnios is greater at each gestational age than in pregnancies not affected by oligohydramnios.

CONCLUSION: The risk of expectant management at past 38 weeks in pregnancies affected by oligohydramnios is associated with an increased risk of fetal and infant mortality compared to the infant mortality associated with delivery, however the difference in risk is small prior to 41 weeks. Individual characteristics and fetal testing should be considered when considering timing of delivery.



Composite Risk At Term

GA	Oligohydramnios (95% CI)			Unaffected Pregnancies (95% CI)		
	Stillbirths/10,000 Ongoing Pregnancies	Infant Deaths/10,000 Live Births	Composite Risk of Expectant Management	Stillbirths/10,000 Ongoing Pregnancies	Infant Deaths/10,000 Live Births	Composite Risk of Expectant Management
37	2.1 (0.7-3.5)	23.6 (18.9-28.3)	12.5 (9.1-15.9)	2.3 (2.1-2.6)	17.7 (17.0-18.3)	14.2 (13.6-14.8)
38	3.2 (1.3-5.0)	10.4 (7.1-13.8)	21.4 (16.6-26.2)	3.2 (3.0-3.5)	11.8 (11.3-12.4)	12.9 (12.3-13.5)
39	6 (3.2-8.9)	18.2 (12.2-23.3)	17.3 (12.4-22.2)	4.1 (3.7-4.8)	9.7 (9.1-10.3)	14.5 (13.8-15.2)
40	7.6 (3.6-11.5)	11.3 (6.5-16.2)	13.9 (21.6-61.6)	5.8 (5.2-6.4)	10.4 (9.6-11.2)	16.8 (15.8-17.8)
41	21.1 (11.0-31.3)	6.3 (0.8-11.9)	46.6 (31.6-61.6)	8.9 (7.7-10.1)	11 (9.7-12.3)	21.2 (19.1-23.0)
42	50.8 (15.7-86.0)	23.5 (0.3-30.5)	50.8 (15.6-86.0)	22.9 (19.0-26.8)	12.3 (9.4-15.2)	22.9 (19.9-26.8)

375 Offspring's low birth weight a predictor of maternal cardiovascular disease

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OBJECTIVE: Cardiovascular disease (CVD) risk prediction models are currently the basis for preventive interventions. Giving birth to a low birth weight infant (LBW) is associated with increased risk of ischemic heart disease in the mother in later life. The aim of this study was to determine if offspring's LBW improves prediction of CVD beyond traditional risk factors.

STUDY DESIGN: Risk of CVD in relation to infant's LBW and traditional risk factors was evaluated in a prospective cohort of 404