

405 WITHDRAWN

**406 PRIMIPARITY IS AN INDEPENDENT RISK FACTOR FOR PRETERM DELIVERY IN TWIN GESTATIONS: A POPULATION BASED STUDY** OFFER EREZ<sup>1</sup>, AMIT MAYER<sup>1</sup>, ILANA SHOHAM-VARDI<sup>2</sup>, DORON DUKLER<sup>3</sup>, MOSHE MAZOR<sup>4</sup>, <sup>1</sup>Soroka University Medical Center, Beer Sheva, Israel, <sup>2</sup>Ben Gurion University, Epidemiology, Beer Sheva, Israel, <sup>3</sup>Soroka University Medical Center, Faculty of Health Sciences, Ben Gurion University of the Negev, Departments of Obstetrics and Gynecology, Beer-Sheva, Israel, <sup>4</sup>Soroka University Medical Center, Beer Sheva, Israel

**OBJECTIVE:** To characterize the association between primiparity and pregnancy complications in twin gestation.

**STUDY DESIGN:** A retrospective population based cohort study was designed, including all twin deliveries after 24 weeks gestation. Maternal characteristics and perinatal outcome were evaluated. Women with fetal malformations were excluded. Patients data were obtained from computerized database and analyzed using SPSS statistical package.

**RESULTS:** During the study period (1988-2002), there were 2601 patients who delivered twins: 666 (25.6%) were primiparous (study group) and the remaining 1935 women were multiparous (control group). Primiparous patients with twin gestation had significantly higher rates of preeclampsia, chronic hypertension, infertility treatments, PROM, preterm deliveries (PTD), non progressive labor (NPL), cesarean deliveries (CS) and vacuum extraction of first twin in comparison to the multiparous group. The rates of small for gestational age, twin discordancy, non reassuring fetal heart rate monitoring in the first twin were significantly higher among primiparous group. In contrast, the prevalence of assisted breech delivery of first twin and total breech extraction of second twin were significantly higher in the multiparous group. Primiparous patients had significantly lower gestational age at delivery and birth weight of first and second twin. To evaluate maternal characteristics that can identify women at increased risk for CS, PTD and neonatal death, a multiple logistic regressions were performed. Primiparity remained an independent risk factor for PTD, but not for CS and neonatal mortality (OR 1.45, 95% CI 1.18-1.78 and OR 1.06, 95% CI 0.9-1.2; OR 1.20, 95% CI 0.62-2.31, respectively).

**CONCLUSION:** Primiparity is an independent risk factor for prematurity in twin gestations. Primiparous women had an increased maternal and neonatal morbidity rate, but not neonatal mortality.

**407 INTRAABDOMINAL DILATATION IN FETUSES WITH GASTROSCHISS IS ASSOCIATED WITH INCREASED NUMBER OF OPERATIONS IN THE NEONATAL PERIOD** DEBRA PIEHL<sup>1</sup>, ASHA RIJHSINGANI<sup>1</sup>, <sup>1</sup>University of Iowa, Obstetrics and Gynecology, Iowa City, Iowa

**OBJECTIVE:** Previous studies have compared prenatal ultrasound findings with neonatal outcomes in fetuses with gastroschisis to find predictors of adverse events. We attempted to determine if fetal intraabdominal dilatation had an impact on neonatal outcome.

**STUDY DESIGN:** We compared 27 mother-child pairs with prenatal diagnosis of fetal gastroschisis to neonatal outcomes. Findings of stomach and intra-abdominal dilatation were compared with total number of operations, days of respiratory support, days of parenteral nutrition, number of post-op days until oral feedings were started and age at discharge.

**RESULTS:** Fetuses prenatally diagnosed with intraabdominal dilatation required an increased number of operations. Stomach dilatation independently was associated with significantly more days of respiratory support (ventilatory and continued positive airway pressure). Presence of meconium or IUGR did not change any of the post-operative outcomes. Fifty percent (13/27) of neonates had bowel abnormalities detected during surgery. Malrotation was the most common (10/13), followed by atresia and stenosis (3/13). 4/13 neonates with bowel abnormalities were born to pregnancies complicated by meconium.

**CONCLUSION:** Fetuses with gastroschisis that have dilatation of the bowels or the stomach area at a greater risk for repeat operations and ventilatory support. Findings of IUGR or moderate to thick meconium in the amniotic fluid did not change the neonatal outcome.

#### Intraabdominal dilatation and neonatal outcome

	Stomach dilatation			Intraabdominal dilatation		
	Present n = 7	Absent n = 20	P value	Present n = 19	Absent n = 8	P value
Total No. operations	2.28 ± .10	1.70 ± .86	.07	2.05 ± 0.91	1.38 ± 0.74	.04
No. days on respiratory support	8.5 ± 7.34	4.2 ± 3.18	.05	5.94 ± 5.39	3.5 ± 1.85	NS
Days of parenteral feedings	20.0 ± 12.94	18.5 ± 12.09	NS	20.58 ± 13.60	14.87 ± 6.33	NS

**408 AUDITORY BRAINSTEM RESPONSES (ABRS) IN NEONATES EXPOSED TO REPEATED COURSES OF ANTENATAL CORTICOSTEROIDS** MICHAEL W. CHURCH<sup>1</sup>, <sup>1</sup>for the NICHD MFMU Network, Bethesda, Maryland

**OBJECTIVE:** The neonatal ABR, a sensitive measure of brain maturation, can help determine if repeated courses of antenatal corticosteroids (AC) had a beneficial or harmful effect on infant brain and auditory function. Our objective was to determine if repeated AC had any effects on the neonatal ABR.

**STUDY DESIGN:** We performed an ancillary study at 6 of the 19 centers that conducted a double-blind, placebo-controlled clinical trial of repeated AC. Consenting women <32 wks gestation, who were at high risk for preterm birth and had received one course of AC, were randomized to receive additional weekly courses of AC (Betamethasone) or placebo. ABR testing was performed on infants prior to discharge. The ABRs were evoked by 45 and 70dB clicks delivered to the right and left ears separately, utilizing standard procedures and recording equipment. The ABR's Wave V latencies were analyzed by the Weibull procedure which adjusts for the correlation due to twins ( $P < .05$  considered significant, 2-tailed test).

**RESULTS:** We enrolled 49 mothers, 11 of whom carried twins, giving 60 infants who were ABR tested. Fifty-one infants had complete sets of ABR data. The repeated AC (n = 24) and placebo (n = 27) groups respectively had right ear Wave V latencies (mean ± SD) of  $7.93 \pm 0.60$  vs  $7.63 \pm 0.65$  msec ( $P = .08$ ) and left ear Wave V latencies of  $7.73 \pm 0.60$  vs  $7.62 \pm 0.52$  msec ( $P = .41$ ) – where longer latencies suggest less maturity. A power analysis (80% power), using an infant's highest Wave V latency value from either ear, indicated that a total 260 infants (130/group) would be needed to achieve statistical significance. Results from the 45 dB condition were very similar. The number of treatment courses, gestational ages at birth and at ABR testing did not differ between groups; whereas birth weight, head circumference and length were smaller in the repeated AC group ( $P < .05$ ).

**CONCLUSION:** Repeated AC treatments did not affect neonatal brain development as assessed by the ABR's Wave V latencies, despite significant effects on birth size.