162 RACIAL DISPARITIES IN PRETERM BIRTH RATES AMONG WOMEN WITH HISTORY-INDICATED CERCLAGES ELIZABETH PLATZ[1], SCOTT SULLIVAN[1], ROGER NEWMAN[2], MYLA EBELING[1], [1]Medical University of South Carolina, Charleston, South Carolina, [2]Medical University of South Carolina, Mount Pleasant, South Carolina

OBJECTIVE: To determine if there is a difference in gestational age at delivery between African-American and Caucasian women who have undergone a history indicated cervical cerclage.

STUDY DESIGN: This was an IRB approved, retrospective cohort study of African-American and Caucasian women who underwent a history-indicated cervical cerclage. The study subjects were identified from a validated, research quality perinatal database. All subjects received a history indicated vaginal cerclage utilizing a McDonald technique prior to 15 weeks of gestation. The primary outcome was spontaneous preterm birth; subdivided by gestational age as less than 20 weeks, 20-23 weeks, 24-27 weeks, 28-31 weeks, 32-34 weeks and 35-36 weeks. Cumulative incidence of preterm birth was reported. Multivariable logistic regression was used to control for demographic and clinical differences between groups.

RESULTS: A cohort of 270 women was identified from between 1997 and 2007; 198 African-American women (study group) and 72 Caucasian women (control group). African-American women were significantly more likely to be obese ($p<.0001$), have Medicaid insurance ($p<.01$), and be diagnosed with bacterial vaginosis ($p<.05$) or Chlamydia cervicitis ($p<.05$). Caucasian women were significantly more likely to have had a previous cesarean section ($p<.002$). There was no difference in the odds of delivery prior to 20 weeks of gestation between cohorts. The African-American women were at significantly increased risk of delivery prior to 24 weeks (8.6 % vs. 1.4% adj OR 5.39 [1.05 – 17.3]), 28 weeks (20.2% vs. 4.2% adj OR 5.683 [1.1-18.3]) and 32 weeks of gestation (35.4% vs. 15.3% adj OR 3.05 [1.57-8.4]) compared to the Caucasian women. The mean gestational age (32.7 vs. 34.5 weeks) and birth weight (2209 vs.2608 grams, $p<.01$) were also significantly lower for the African-American women.

CONCLUSION: African-American women undergoing history indicated cerclages experienced significantly higher rates of preterm birth less than 24, 28 and 32 weeks of gestation when compared to Caucasian women.

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163 AUGMENTATION OF LABOR FOR PROLONGED LATENT PHASE AT TERM: A RANDOMIZED COMPARISON BETWEEN AMNIOTOMY, OXYTOCIN OR BOTH GALI GARMI[1], RAED SALIM[2], IFAT KADAN[1], NOAH ZAFRAN[1], ELIEZER SHALEV[2], ZOHAR NACHUM[2], [1]HaEmek Medical Center, Ob&Gyn, Afula, Israel, Israel, [2]HaEmek Medical Center, Ob&Gyn, Afula, Rappaport Medical School, Technion, Haifa, Israel, Israel

OBJECTIVE: To compare between amniotomy, oxytocin or combination of them for augmentation of labor for prolonged latent phase at term.

STUDY DESIGN: The study enrolled 227 women with singletons at term. Of them, 170 had a prolonged latent phase and a favorable cervix (Bishop score>4) and were randomly divided for augmentation by amniotomy (group 1), oxytocin (group 2) or both (group 3). If after 2 hours labor did not progress in groups 1 or 2, the other method was added. For comparison, a 4th group with 57 women in spontaneous labor was studied. We assumed that the augmentation-to-delivery interval would be 8 ± 1.5h. A sample size of 48 women in each group was necessary to demonstrate a 60min reduction in the augmentation-to-delivery interval in group 3 with $a=0.05$ and power=90%.

RESULTS: The groups were comparable in their demographic, baseline and obstetrical characteristics. In group 1, 40% of patients required oxytocin. In group 3, the augmentation-to-regular contractions interval, the augmentation-to-labor progression interval and the augmentation-to-delivery interval were significantly shorter by up to 2-4h compared to the other groups (table). In all groups, the vacuum/cesarean delivery rates and complications during labor and delivery rates were low, and patient satisfaction was high.

CONCLUSION: In women with a prolonged latent phase at term, augmentation by combined amniotomy and oxytocin offers a considerable shortening of the interval to delivery without raising the rate of complications with a high rate of patient satisfaction.

	Group 1 – amniotomy (n=58)	Group 2 – oxytocin (n=54)	Group 3 – both (n=58)	Group 4 – spontaneous labor (n=57)
Primiparity	33%	28%	22%	35%
Enrollment-to-3 contractions per 10 min, min (SD)	*125 (101)	*130 (117)	86 (68)	
Enrollment-to-1 cm progression, min (SD)	*164 (141)	**193 (120)	115 (171)	
Enrollment-to-10 cm dilatation, min (SD)	**358 (279)	**398 (265)	231 (124)	**456 (288)
Active phase, min (SD)	128 (124)	90 (70)	98 (66)	*^132 (98)
Second stage, min (SD)	37 (54)	29 (47)	23 (33)	*42 (58)
Enrollment-to-delivery, min (SD)	**395 (306)	**427 (280)	254 (136)	**498 (313)
Epidural analgesia	28%	31%	22%	33%
Vacuum delivery	5.2%	1.9%	5.2%	1.8%
Cesarean delivery	3.4%	3.7%	1.7%	0
Fever during/after labor	6.9%	0	0	0
Number of PV exams	**6.2 (2.9)	*5.9 (2.3)	5.0 (1.7)	5.5 (2.0)
1 min Apgar score < 7	0	0	1.7%	0
Postpartum hemorrhage	0	5.6%	5.2%	0
Satisfaction, 1 to 5 (SD)	°4.7 (0.6)	**4.5 (0.8)	°4.8 (0.5)	5.0 (0.1)

* P<0.03 compared to group 3
** P<0.01 compared to group 3
^ P=0.01 compared to group 2
° P<0.02 compared to group 4
Other variables did not differ significantly

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164 ANTENATAL STEROIDS FOR ENHANCEMENT OF FETAL LUNG MATURITY AFTER 34 WEEKS: LUNG MATURITY AND ANTENATAL STEROIDS (LUMAS) STUDY ANTHONY SHANKS[1], GILAD GROSS[1], TAMMY SHIM[1], JENNIFER ALLSWORTH[1], CHRISTOPHER MOGA[1], YOEL SADOVSKY[1], IBRAHIM BILDIRICI[1], [1]Washington University in St. Louis, Saint Louis, Missouri

OBJECTIVE: To determine the effect of antenatal glucocorticoid administration on fetal lung maturity in pregnancies with known fetal lung immaturity between the 34th and 37th weeks of gestation.

STUDY DESIGN: Pregnancies between 34 0/7-36 6/7 weeks undergoing amniocentesis to determine fetal lung maturity were targeted. Women with negative results (TDx-FLM-II < 45 mg/g) were randomized to intramuscular (IM) glucocorticoid injection (6 mg dexamethasone every 12 hours for 4 doses or 12 mg betamethasone every 24 hours for two doses) or no-treatment. A repeat TDx-FLM-II test was obtained one week after enrollment by either amniocentesis or directly at the time of delivery.

RESULTS: Over a five year period 32 women who met inclusion criteria were randomized. Seven women (3 in the steroid arm and 4 in the no steroid arm) delivered within a week of repeat testing for fetal lung maturity. Ten received IM glucocorticoid and 15 received no-treatment. Women assigned to glucocorticoids had a mean TDx-FLM-II increase in one week of 26.22 + 9.72 (95% CI 15.54-36.9). Women assigned to no treatment had an increase of 9.76 + 2.03 (95% CI 5.41-14.11). The differences between the two groups were statistically significant ($p<0.002$). Although the study was not powered to detect differences in neonatal outcome, there were two NICU admissions secondary to respiratory distress requiring intubation; both in the no treatment arm. There were no maternal complications.

CONCLUSION: A single course of IM glucocorticoids even after 34 weeks in pregnancies with documented lung immaturity can significantly increase the TDx-FLM-II in one week. Patients with negative fetal lung maturity parameters between the 34th-37th weeks can benefit from a single course of steroids. The data suggest a potential to decrease neonatal morbidity and warrants a larger study to assess neonatal outcome.

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