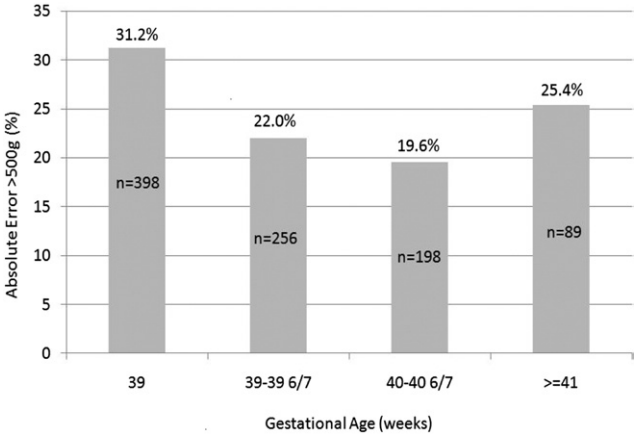

299 The impact of episiotomy for shoulder dystocia on neonatal injury

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OBJECTIVE: To examine the effect of episiotomy for shoulder dystocia on neonatal injury.

STUDY DESIGN: This was a retrospective cohort study of 5,713 births delivered in California in 2006. Brachial plexus injury (BPI), clavicular fracture, neonatal seizure, and neonatal mortality were compared using the chi-squared test with multivariable regressions to control for potential confounders including maternal age, race/ethnicity, insurance type at delivery, education level, operative vaginal delivery, gestational age, birthweight, and obesity.

RESULTS: There were significantly more BPIs in women who had episiotomies (5.85%) compared to women without (4.24%), with an adjusted odds ratio of 1.49 (95%Cl, 1.09-2.04). The rate of clavicular fracture was not significantly different between groups, (aOR 1.31,95%Cl, 0.92-1.87). There was not a significant difference in rates of neonatal seizure or mortality (Table).

CONCLUSION: In the setting of shoulder dystocia, epsiotomy has been proposed as a technique to reduce potential fetal injury. However, these data suggest that there is no improvement with episiotomy in the setting of shoulder dystocia. A prospective, randomized controlled trial may help determine best practice in this setting.

	No Epsiotomy	Epsiotomy	p-value
Brachial Plexus Injury	4.24	5.85	0.028
Clavicle Fracture	3.48	4.21	0.27
Neonatal Seizure	0.13	0	0.266
Neonatal Mortality	0.11	0	0.311

300 Withdrawn

301 Induction of labor with oxytocin: should oxytocin be held?

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OBJECTIVE: Once active labor is reached in women undergoing induction of labor, common practice is to continue oxytocin intravenously. However, continued infusion may lead to desensitization of the receptors to both exogenous and endogenous oxytocin. Our objective was to determine whether there is an increase in the cesarean delivery rate and labor length in women undergoing induction when oxytocin is discontinued in the active phase of labor.

STUDY DESIGN: This was a prospective randomized controlled trial of women undergoing induction of labor with a singleton gestation ≥37 weeks during February 2009-August 2011 at Lehigh Valley Health Network. Women were randomly assigned to either oxytocin as routinely used (ROUT) or oxytocin discontinuation (DC) once in active labor. Induction method and labor management were otherwise left at the discretion of the obstetrician. Analysis was by intention to treat.

RESULTS: 241 patients were eligible for study analysis: 119 patients randomized to ROUT and 122 patients randomized to DC once active labor was reached. 23.8% (n=29) randomized to DC were continued on oxytocin once active. Oxytocin was restarted in 46.7% of patients randomized to DC (n=57). Cesarean delivery (CD) rate was similar between the groups (ROUT 25.2% [n=30] vs. DC 19.7% [n=24], p=0.30). The table shows a slightly higher chorioamnionitis rate and slightly longer active phase in those randomized to DC, although not statistically significant. In adjusted analysis, the rate of chorioamnionitis was not different by randomization arm but was explained by a longer active phase of labor [AOR 1.33 (95% CI 1.12, 1.58), p=0.001].

CONCLUSION: The CD rate was not different among women undergoing induction of labor when oxytocin was discontinued in the active phase. However, a higher rate of chorioamnionitis was related to a longer active phase of labor. Discontinuation of oxytocin once active labor is reached may decrease receptor desensitization without significantly increasing the CD rate, but longer labor duration is associated with an increased risk of chorioamnionitis.

Labor characteristics among women undergoing induction randomized to oxytocin as routinely used (ROUT) vs. oxytocin discontinuation (DC) in the active phase of labor

	ROUT (n=119)	DC (n=122)	p value
Oxytocin dose at time of active labor (mU/min)	9.8 ± 5.3	10.4 ± 6.1	0.37
Maximum oxytocin dose (mU/min)	13.2 ± 6.8	12.9 ± 6.6	0.76
Chorioamnionitis (%)	7 (5.9)	16 (13.1)	0.06
Latent phase			
• Mean (hours)	9.7 ± 7.0	10.1 ± 5.0	0.61
• Median (hours)	7.8 (1.3 – 54.6)	10.6 (0.27 – 23.7)	0.11
Active phase			
• Mean (hours)	3.8 ± 2.8	4.7 ± 3.5	0.05
• Median (hours)	3.0 (0.1 – 15.3)	3.9 (0.07 - 15.5)	0.05
Second stage of labor			
• Mean (hours)	1.0 ± 1.2	1.1 ± 1.3	0.61
• Median (hours)	0.5 (0.03 – 6.7)	0.5 (0 – 6.5)	0.74