165 OXYTOCIN DOES NOT CAUSE UTERINE RUPTURE DURING VBAC

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OBJECTIVE: To determine the association between uterine rupture (UR) and oxytocin (OX) usage in women undergoing VBAC.

STUDY DESIGN: In this retrospective analytic study all cases of uterine rupture were identified over a 10-year epoch.

RESULTS: During the study period there were 36,122 deliveries. Of those who attempted VBAC (2829/4041; 70% of those eligible), 2121/2829 or 75% were successful. There were 18 URs; 15 while attempting VBAC; 3 in unscarred uteri. Of the 18, 5 did not involve OX usage and of the other 13 (6 for induction, 7 for augmentation) there was only one case of hyperstimulation/hypertonus occurring 5 hours before UR. In this group of 13 women, OX was discontinued 60.8 ± 17 min before delivery and 42 ± 12 min before symptoms necessitating delivery. Dosage protocols for OX (1 mU/min [N = 7] or 6 mU/min [N = 6]), interval of time between increases in OX (15 min vs. 60 min), maximum dosage of OX, total OX given, or duration of OX usage at maximum dosage were not related to UR ($P > .05$). There was no sentinel event or symptom such as loss of station (2), hypotension (4), shoulder pain (0), unusual abdominal pain (2), loss of intrauterine pressure (0), or vaginal bleeding (1) that signaled UR. Most often sudden non-reassuring fetal heart rate changes (10) resulted in operative delivery. The mean decision to incision interval was 15 ± 8 min among these subjects. Of the 18 infants there were two stillbirths (UR prior to admission), two neonatal deaths (1 OX; 1 no OX), 3 neurologically disadvantaged infants which included one with congenital hypotonia (with normal Apgar and blood gases), and 2 with UR resulting in low Apgar scores, severe acidosis and cerebral palsy. The remaining infants were discharged alive and well after a 2-4 day neonatal stay.

CONCLUSION: Our data demonstrates that there is a relatively small risk of UR during attempted VBAC. When UR does occur it is not related to OX usage, hyperstimulation, hypertonus, or the dosage protocol utilized.

166 PROPHYLACTIC CERCLAGE IN TRIPLET PREGNANCY. IS IT USEFUL?

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OBJECTIVE: Preterm births and its implications are one of the main problems of triplet pregnancies. Is a prophylactic cerclage (PC) in the second trimester of pregnancy able to prolong the duration of pregnancy?

STUDY DESIGN: Between Oct. 1988 and Oct. 1994 all women with triplet pregnancies managed and delivered at our department were hospitalised between 16th and 23th weeks of gestation for PC. In a retrospective study we compared this group with a group of patients with triplet pregnancies cared for before and after that period (1984-1999). Only mothers who had concluded 24th week of gestation were included.

RESULTS: The entire study involved 50 women with triplet pregnancies. 31 patients recieved no cerclage (NC), 5 emergency cerclage (EC) (23rd weeks of gestation [20-23]) and 14 PC. The median week of pregnancy at PC was 17 weeks (16-23). At this time none of these patients had preterm labour. Patients with PC delivered at 32/5 (24/3-35/4, +2,8) weeks of gestation vs. 32/0 (24/3-35/2, +3,0) ($P = 0{,}147$). Patients with EC delivered at 26/0, 29/1, 32/1, 32/5, 33/3 weeks of gestation. 71% (n = 10) of PC needed intravenous tokolysis and 56% (n = 20) of NC ($P = 0{,}213$). Mean duration of days of tokolysis was 14 and 7 days resp. ($P = 0{,}268$). There were also no statistical difference in maternal age, parity, birth weight, arterial pH and APGAR.

CONCLUSION: Most triplet pregnancies are delivered preterm. A prophylactic cerclage does not prolong the duration of pregnancy. The overall week of gestation at delivery was 33 weeks with and without PC. This might reflect the limits of the uterus as well as the treatment for preterm labour.

167 FAILURE OF LABOR TO PROGRESS DURING THE FIRST STAGE: OBSTETRIC RISK FACTORS AND PERINATAL OUTCOME

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OBJECTIVE: To define obstetric risk factors for failure of labor to progress during the first stage (FLPFS) and to assess perinatal outcome.

STUDY DESIGN: All singleton, vertex, term deliveries with an unscarred uterus, complicated with FLPFS were compared to deliveries without non-progressive labor. Deliveries occurred between the years 1988-1999 in a tertiary university medical center. Multiple logistic regression analysis was performed to investigate independent obstetric risk factors associated with FLPFS.

RESULTS: FLPFS complicated 1.3% (n = 1197) of all deliveries included in the study (n = 92,918), and resulted in Cesarean deliveries. Independent risk factors for FLPFS, using a multivariable analysis, are presented in the Table. Although newborns delivered after FLPFS had significantly higher rates of Apgar scores lower than 7 at 1 and 5 minutes as compared to the controls (18.2% vs. 2.1%; $P < .001$ and 1.3% vs. 0.2%; $P < .001$, respectively), no significant differences were noted between the groups regarding perinatal mortality (0.3% vs. 0.4%; $P = .329$).

CONCLUSION: Major risk factors for FLPFS were premature rupture of membranes, nulliparity, induction of labor, older maternal age, fetal macrosomia, and hypertensive disorders. These risk factors should be carefully evaluated during pregnancy and delivery in order to decrease the rate of Cesarean deliveries.

Table

Factors associated with failure of labor to progress during the first stage: Results from a multivariable analysis

	OR	95% CI	*P*
PROM	3.8	3.2-4.5	<.001
Nulliparity	3.8	3.3-4.3	<.001
Labor induction	3.3	2.9-3.7	<.001
Maternal age >35 y	3.0	2.6-3.6	<.001
Birth weight >4000g	2.2	1.8-2.7	<.001
Hypertensive disorders	2.1	1.8-2.6	<.001
Hydramnios	1.9	1.5-2.3	<.001
Fertility treatment	1.8	1.4-2.4	<.001
Epidural analgesia	1.6	1.3-1.8	<.001
Gestational diabetes	1.4	1.1-1.7	<.001
Gestational age (weeks)	1.3	1.2-1.3	<.001
Male gender	1.2	1.1-1.3	.003

168 ADHERENCE TO GUIDELINES ON CESAREAN SECTION FOR DYSTOCIA IN THE FIRST STAGE OF LABOR

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OBJECTIVE: To investigate the extent to which the guidelines of the Society of Obstetricians and Gynecologists of Canada (SOGC) on dystocia in the first stage of labour are being followed, and whether adherence to the guidelines is related to cesarean section rates.

STUDY DESIGN: Patients delivered by a 10 physician call group over a four-year period were studied. Data, including cervical dilation, were extracted for nulliparous women in labour with singleton, cephalic pregnancies at 37 or more completed weeks gestation. Cases were examined to determine whether SOGC guidelines for performance of cesarean section for dystocia in the first stage of labour, were fulfilled. In addition the obstetricians were divided into two groups of five (High v. Low) according to their cesarean section rate for first stage dystocia, to further explore the relationship between adherence to the guidelines, and cesarean section rates.

RESULTS: There were 239 nulliparous women who had a cesarean section for dystocia in the first stage of labour. The guidelines were followed in 47.7% of spontaneous labours and 77.5% of inductions. The odds ratio for caesarean section rate was 1.7 (95% confidence interval 1.3-2.3) for the High versus Low groups and the incidence of one or more guideline violations in these groups was 48.0% and 39.6% respectively ($P = .07$). This difference was confined to the management of induced labours.

CONCLUSION: Many women have cesarean section for dystocia performed without fulfilling SOGC guidelines. However, improved adherence may not lead to a reduction in cesarean section rates.

Table

Guideline violations

	HIGH CS (N = 148)	LOW CS (N = 91)	*P* VALUE
Cervix <4 cm dilated	21 (14.2%)	11 (12.0%)	.64
Progress >0.5 cm/h	17 (11.5%)	10 (11.0%)	.91
Dystocia <4 hours	13 (8.8%)	6 (6.6%)	.54
Augmentation <4 h	32 (21.6%)	14 (15.4%)	.23
One or more of above	71 (48.0%)	36 (39.6%)	.07