



June 2015 Literature Alert

1.

J Matern Fetal Neonatal Med. 2015 Apr;28(6):654-60. doi: 10.3109/14767058.2014.928689. Epub 2014 Jun 30.

[Maternal outcomes according to mode of delivery in women with severe preeclampsia: a cohort study.](#)

Amorim MM, Katz L, Barros AS, Almeida TS, Souza AS, Faúndes A.

Abstract

OBJECTIVE:

To determine the association between mode of delivery and maternal complications in patients with severe preeclampsia.

METHODS:

A prospective cohort study was conducted with 500 pregnant women with severe preeclampsia. The mode of delivery, vaginal or caesarean section, was considered the exposure, while the postpartum maternal complications and severe maternal morbidity were the outcomes. Logistic regression analysis was performed to determine the adjusted risk and 95% confidence intervals (95% CI) of maternal morbidity.

RESULTS:

Labour was spontaneous in 22.0% and induced in 28.2%, while 49.8% had an elective caesarean section. Ninety-five (67.4%) of the patients in whom labour was induced delivered vaginally. Total Caesarean rate was 68.2%. The risk of severe maternal morbidity was significantly greater in patients submitted to Caesarean section (54.0% versus 32.7%) irrespective of the presence of labour. Factors that remained associated with severe maternal morbidity following multivariate analysis were a diagnosis of HELLP syndrome after delivery (OR = 3.73; 95% CI: 1.55-9.88) and having a caesarean (OR = 1.91; 95% CI: 1.52-4.57).

CONCLUSIONS:

Caesareans are often performed in patients with severe preeclampsia and are associated with significant postpartum maternal morbidity. Induction of labour should be considered a feasible option in these patients.

KEYWORDS:

Caesarean; complications; delivery; labour; obstetrics; pre-eclampsia; prognosis

PMID: 24866351 [PubMed - in process]

2.

Lancet Glob Health. 2015 May 18. pii: S2214-109X(15)00038-8. doi: 10.1016/S2214-

109X(15)00038-8. [Epub ahead of print]

[Association between maternal age at childbirth and child and adult outcomes in the offspring: a prospective study in five low-income and middle-income countries \(COHORTS collaboration\).](#)

Fall CH, Sachdev HS, Osmond C, Restrepo-Mendez MC, Victora C, Martorell R, Stein AD, Sinha S, Tandon N, Adair L, Bas I, Norris S, Richter LM; COHORTS investigators.

Abstract

BACKGROUND:

Both young and advanced maternal age is associated with adverse birth and child outcomes. Few studies have examined these associations in low-income and middle-income countries (LMICs) and none have studied adult outcomes in the offspring. We aimed to examine both child and adult outcomes in five LMICs.

METHODS:

In this prospective study, we pooled data from COHORTS (Consortium for Health Orientated Research in Transitioning Societies)-a collaboration of five birth cohorts from LMICs (Brazil, Guatemala, India, the Philippines, and South Africa), in which mothers were recruited before or during pregnancy, and the children followed up to adulthood. We examined associations between maternal age and offspring birthweight, gestational age at birth, height-for-age and weight-for-height Z scores in childhood, attained schooling, and adult height, body composition (body-mass index, waist circumference, fat, and lean mass), and cardiometabolic risk factors (blood pressure and fasting plasma glucose concentration), along with binary variables derived from these. Analyses were unadjusted and adjusted for maternal socioeconomic status, height and parity, and breastfeeding duration.

FINDINGS:

We obtained data for 22 188 mothers from the five cohorts, enrolment into which took place at various times between 1969 and 1989. Data for maternal age and at least one outcome were available for 19 403 offspring (87%). In unadjusted analyses, younger (≤ 19 years) and older (≥ 35 years) maternal age were associated with lower birthweight, gestational age, child nutritional status, and schooling. After adjustment, associations with younger maternal age remained for

low birthweight (odds ratio [OR] 1.18 [95% CI 1.02-1.36]), preterm birth (1.26 [1.03-1.53]), 2-year stunting (1.46 [1.25-1.70]), and failure to complete secondary schooling (1.38 [1.18-1.62]) compared with mothers aged 20-24 years. After adjustment, older maternal age remained associated with increased risk of preterm birth (OR 1.33 [95% CI 1.05-1.67]), but children of older mothers had less 2-year stunting (0.64 [0.54-0.77]) and failure to complete secondary schooling (0.59 [0.48-0.71]) than did those with mothers aged 20-24 years. Offspring of both younger and older mothers had higher adult fasting glucose concentrations (roughly 0.05 mmol/L).

INTERPRETATION:

Children of young mothers in LMICs are disadvantaged at birth and in childhood nutrition and schooling. Efforts to prevent early childbearing should be strengthened. After adjustment for confounders, children of older mothers have advantages in nutritional status and schooling. Extremes of maternal age could be associated with disturbed offspring glucose metabolism.

FUNDING:

Wellcome Trust and the Bill & Melinda Gates Foundation.

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PMID: 25999096 [PubMed - as supplied by publisher]

3.

N Engl J Med. 2015 May 7;372(19):1801-11. doi: 10.1056/NEJMoa1410689.

[Between-hospital variation in treatment and outcomes in extremely preterm infants.](#)

Rysavy MA, Li L, Bell EF, Das A, Hintz SR, Stoll BJ, Vohr BR, Carlo WA, Shankaran S, Walsh MC, Tyson JE, Cotten CM, Smith PB, Murray JC, Colaizy TT, Brumbaugh JE, Higgins RD; Eunice Kennedy Shriver National Institute of Child Health and Human Development Neonatal Research Network.

Abstract

BACKGROUND:

Between-hospital variation in outcomes among extremely preterm infants is largely unexplained and may reflect differences in hospital practices regarding the initiation of active lifesaving treatment as compared with comfort care after birth.

METHODS:

We studied infants born between April 2006 and March 2011 at 24 hospitals included in the Eunice Kennedy Shriver National Institute of Child Health and Human Development Neonatal Research Network. Data were collected for 4987 infants born before 27 weeks of gestation without congenital anomalies. Active treatment was defined as any potentially lifesaving

intervention administered after birth. Survival and neurodevelopmental impairment at 18 to 22 months of corrected age were assessed in 4704 children (94.3%).

RESULTS:

Overall rates of active treatment ranged from 22.1% (interquartile range [IQR], 7.7 to 100) among infants born at 22 weeks of gestation to 99.8% (IQR, 100 to 100) among those born at 26 weeks of gestation. Overall rates of survival and survival without severe impairment ranged from 5.1% (IQR, 0 to 10.6) and 3.4% (IQR, 0 to 6.9), respectively, among children born at 22 weeks of gestation to 81.4% (IQR, 78.2 to 84.0) and 75.6% (IQR, 69.5 to 80.0), respectively, among those born at 26 weeks of gestation. Hospital rates of active treatment accounted for 78% and 75% of the between-hospital variation in survival and survival without severe impairment, respectively, among children born at 22 or 23 weeks of gestation, and accounted for 22% and 16%, respectively, among those born at 24 weeks of gestation, but the rates did not account for any of the variation in outcomes among those born at 25 or 26 weeks of gestation.

CONCLUSIONS:

Differences in hospital practices regarding the initiation of active treatment in infants born at 22, 23, or 24 weeks of gestation explain some of the between-hospital variation in survival and survival without impairment among such patients. (Funded by the National Institutes of Health.).

PMID: 25946279 [PubMed - indexed for MEDLINE] PMCID: PMC4465092 [Available on 2015-11-07]

4.

Fetal Diagn Ther. 2015;37(4):259-66. doi: 10.1159/000363651. Epub 2015 Feb 14.

[Treatment of Primary Fetal Hydrothorax with OK-432 \(Picibanil\): Outcome in 14 Fetuses and a Review of the Literature.](#)

O'Brien B, Kesby G, Ogle R, Rieger I, Hyett JA.

Abstract

BACKGROUND:

Primary fetal hydrothorax (PFHT) is an uncommon condition with an estimated prevalence of 1 in 10,000/15,000 pregnancies. Therapeutic interventions include thoracocentesis, thoraco-amniotic shunting (TAS), and pleurodesis using OK-432.

METHODS:

A review of the literature was performed to identify all cases of PFHT treated with TAS and OK-432. All cases of PFHT referred to the Fetal Maternal Unit at Royal Prince Alfred Hospital between 2002 and 2012 were retrospectively reviewed. In the cohort of fetuses treated with OK-432, the main perinatal outcomes evaluated were termination of pregnancy, live birth,

neonatal death, and fetal death in utero. Secondary outcomes included gestational age (GA) at diagnosis, GA at treatment, GA at resolution, birth weight, and GA at birth. The development of the children was screened using the Ages and Stages Questionnaires, Version 3 (ASQ-3, 2009).

RESULTS:

Primary hydrothorax was diagnosed in 31 fetuses, of which 14 had treatment with OK-432. One pregnancy terminated after treatment with OK-432. Survival was 85% (11/13): 100% in fetuses treated with OK-432 without hydrops, and 78% in those treated with hydrops. This compares well to the cases of TAS in the literature with an average survival of 63%: 85% in fetuses without hydrops and 55% with hydrops. The mean GA at birth was 36(+4) weeks and mean birth weight 3,007 g. Eight of the 9 children screened with ASQ-3 scored well within the normal range.

CONCLUSION:

OK-432 appears to be a valid treatment option in fetuses with PFHT, particularly in those diagnosed at early GAs. © 2015 S. Karger AG, Basel.

PMID: 25721226 [PubMed - in process]

5.

J Neonatal Perinatal Med. 2015 Mar 12. [Epub ahead of print]

[Placental pathology in asphyxiated newborns treated with therapeutic hypothermia.](#)

Lachapelle J, Chen M, Oskoui M, Ali N, Brown R, Wintermark P.

Abstract

OBJECTIVE:

To describe the placental findings in asphyxiated newborns treated with hypothermia and to determine their association with the presence and severity of later brain injury.

METHODS:

Prospective cohort study of the placentas of asphyxiated newborns treated with hypothermia, in whom later brain injury was defined by brain imaging and/or autopsy results.

RESULTS:

Of the 142 asphyxiated newborns meeting the criteria for hypothermia, 73% had placenta and brain MRI/autopsy available for analysis. Fifty-one percent of these newborns developed brain injury. Sixty-five percent had microscopic placental findings involving the fetal vascular supply, which were comparable in asphyxiated newborns developing or not developing brain injury. Among the asphyxiated newborns with normal placental growth, the placental microscopic findings tended to be more common in those developing brain injury compared to those who did not: chorionic plate meconium in 50% compared to 36%, chorioamnionitis in 75% compared to 44%, and villitis of unknown etiology in 67% compared to 33%, but this did not reach statistical significance.

CONCLUSIONS:

Antenatal placental processes are common in term asphyxiated newborns treated with hypothermia. The placenta of each asphyxiated term newborn treated with hypothermia should be carefully examined to better understand its role in the progression from perinatal depression to brain injury.

KEYWORDS:

Placenta; hypothermia; neonatal encephalopathy; newborn
PMID: 25766201 [PubMed - as supplied by publisher]

6.

J Neonatal Perinatal Med. 2015 Mar 12. [Epub ahead of print]

[A review of the risks and consequences of adolescent pregnancy.](#)

Jeha D, Usta I, Ghulmiyyah L, Nassar A.

Abstract

OBJECTIVE:

To evaluate the risks and consequences of young maternal age on both the mother and the newborn.

STUDY DESIGN:

A comprehensive literature review on the risks and consequences of adolescent pregnancy was performed.

RESULTS:

Young maternal age is associated with an increased risk of maternal anemia, infections, eclampsia and preeclampsia, emergency cesarean delivery, postpartum depression and inadequate breastfeeding initiation. Infants of teenage mothers are more likely to be premature and have a low birth weight, and are at an increased risk for respiratory distress syndrome and autism later in life.

CONCLUSIONS:

Adolescent pregnancy is a prevalent phenomenon associated with increased risks of both maternal and neonatal complications during and after pregnancy. Being aware of such adverse outcomes is imperative to improving prenatal and perinatal care. Pregnancy progression can also be influenced by the mother's culture, environment, and economic status; advancement in which may be a possible course for future improvement.

KEYWORDS:

Adolescent; obstetric outcome; pregnancy; teenage
PMID: 25766198 [PubMed - as supplied by publisher]

7.

Ann Intern Med. 2015 May 5;162(9):601-9. doi: 10.7326/M14-2062.

[Low-molecular-weight heparin for women with unexplained recurrent pregnancy loss: a multicenter trial with a minimization randomization scheme.](#)

Schleussner E, Kamin G, Seliger G, Rogenhofer N, Ebner S, Toth B, Schenk M, Henes M, Bohlmann MK, Fischer T, Brosteanu O, Bauersachs R, Petroff D; ETHIG II group.

Abstract

BACKGROUND:

A daily injection of low-molecular-weight heparin (LMWH) is often prescribed to women with unexplained recurrent pregnancy loss (RPL), although evidence suggesting a benefit is questionable.

OBJECTIVE:

To determine whether LMWH increases ongoing pregnancy and live-birth rates in women with unexplained RPL.

DESIGN:

Controlled, multicenter trial with randomization using minimization conducted from 2006 to 2013. (ClinicalTrials.gov: NCT00400387).

SETTING:

14 university hospitals and perinatal care centers in Germany and Austria.

PATIENTS:

449 women with at least 2 consecutive early miscarriages or 1 late miscarriage were included during 5 to 8 weeks' gestation after a viable pregnancy was confirmed by ultrasonography.

INTERVENTION:

Women in the control group received multivitamin pills, and the intervention group received vitamins and 5000 IU of dalteparin-sodium for up to 24 weeks' gestation.

MEASUREMENTS:

Primary outcome was ongoing pregnancy at 24 weeks' gestation. Secondary outcomes included the live-birth rate and late pregnancy complications.

RESULTS:

At 24 weeks' gestation, 191 of 220 pregnancies (86.8%) and 188 of 214 pregnancies (87.9%) were intact in the intervention and control groups, respectively (absolute difference, -1.1 percentage points [95% CI, -7.4 to 5.3 percentage points]). The live-birth rates were 86.0% (185 of 215 women) and 86.7% (183 of 211 women) in the intervention and control groups, respectively (absolute difference, -0.7 percentage point [CI, -7.3 to 5.9 percentage points]). There were 3 intrauterine fetal deaths (1 woman had used LMWH); 9 cases of preeclampsia or the hemolysis, elevated liver enzyme level, and low platelet count (HELLP) syndrome (3 women

had used LMWH); and 11 cases of intrauterine growth restriction or placental insufficiency (5 women had used LMWH).

LIMITATION:

Placebo injections were not used, and neither trial staff nor patients were blinded.

CONCLUSION:

Daily LMWH injections do not increase ongoing pregnancy or live-birth rates in women with unexplained RPL. Given the burden of the injections, they are not recommended for preventing miscarriage.

PRIMARY FUNDING SOURCE:

Pfizer Pharma.

PMID: 25938990 [PubMed - in process]

8.

Ann Intern Med. 2015 Jun 2;162(11):765-76. doi: 10.7326/M14-2221.

[Screening for type 2 diabetes mellitus: a systematic review for the u.s. Preventive services task force.](#)

Selph S, Dana T, Blazina I, Bougatsos C, Patel H, Chou R.

Abstract

BACKGROUND:

Screening for type 2 diabetes mellitus could lead to earlier identification and treatment of asymptomatic diabetes, impaired fasting glucose (IFG), or impaired glucose tolerance (IGT), potentially resulting in improved outcomes.

PURPOSE:

To update the 2008 U.S. Preventive Services Task Force review on diabetes screening in adults.

DATA SOURCES:

Cochrane databases and MEDLINE (2007 through October 2014) and relevant studies from previous Task Force reviews.

STUDY SELECTION:

Randomized, controlled trials; controlled, observational studies; and systematic reviews.

DATA EXTRACTION:

Data were abstracted by 1 investigator and checked by a second; 2 investigators independently assessed study quality.

DATA SYNTHESIS:

In 2 trials, screening for diabetes was associated with no 10-year mortality benefit versus no screening (hazard ratio, 1.06 [95% CI, 0.90 to 1.25]). Sixteen trials consistently found that treatment of IFG or IGT was associated with delayed progression to diabetes. Most trials of treatment of IFG or IGT found no effects on all-cause or cardiovascular mortality, although

lifestyle modification was associated with decreased risk for both outcomes after 23 years in 1 trial. For screen-detected diabetes, 1 trial found no effect of an intensive multifactorial intervention on risk for all-cause or cardiovascular mortality versus standard control. In diabetes that was not specifically screen-detected, 9 systematic reviews found that intensive glucose control did not reduce risk for all-cause or cardiovascular mortality and results for intensive blood pressure control were inconsistent.

LIMITATION:

The review was restricted to English-language articles, and few studies were conducted in screen-detected populations.

CONCLUSION:

Screening for diabetes did not improve mortality rates after 10 years of follow-up. More evidence is needed to determine the effectiveness of treatments for screen-detected diabetes. Treatment of IFG or IGT was associated with delayed progression to diabetes.

PRIMARY FUNDING SOURCE:

Agency for Healthcare Research and Quality.

PMID: 25867111 [PubMed - in process]

9.

J Pediatr Surg. 2015 May;50(5):755-9. doi: 10.1016/j.jpedsurg.2015.02.030. Epub 2015 Feb 20.

[The correlation between the time spent in utero and the severity of bowel matting in newborns with gastroschisis.](#)

Youssef F, Laberge JM1, Baird RJ; Canadian Pediatric Surgery Network (CAPSNet).

Abstract

BACKGROUND:

Optimal timing of delivery in fetuses with gastroschisis (GS) is unknown. Some favor early induced delivery to prevent bowel injury. This study evaluates the correlation between bowel injury and the gestational age at birth using the Gastroschisis Prognostic Score (GPS).

METHODS:

A national database was analyzed from 2005 to 2013. Patients were pooled based on their gestational age at birth. The mean GPS and % of patients with severe bowel matting were tabulated for each week in utero. Regression modeling was used to evaluate the relationship between the dependent (severe matting and GPS) and independent (gestational age) variables and the R(2) coefficient of determination was derived to evaluate model strength. Additional factors influencing the timing of delivery were evaluated.

RESULTS:

Of 780 cases, 88 were excluded because of missing data. A linear relationship is seen between increasing gestational age and decreasing bowel matting ($R(2)=0.66$) and GPS ($R(2)=0.72$). For every week in utero, the % of patients with severe matting decreases by 3.6%.

CONCLUSION:

Early induced delivery simply to protect the bowel from ongoing in utero damage appears unfounded and should be reserved for evidence of closing gastroschisis or traditional obstetrical/fetal indications.

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KEYWORDS:

Bowel matting; GPS (gastroschisis prognostic score); Gastroschisis

PMID: 25783374 [PubMed - in process]

10.

J Pediatr Surg. 2015 May;50(5):771-4. doi: 10.1016/j.jpedsurg.2015.02.034. Epub 2015 Feb 20.

[Predictors of poor prognosis in prenatally diagnosed sacrococcygeal teratoma: A multiinstitutional review.](#)

Akinkuotu AC, Coleman A, Shue E, Sheikh F, Hirose S, Lim FY, Olutoye OO.

Abstract

INTRODUCTION:

Attempts at defining predictors of poor outcome in fetal sacrococcygeal teratoma (SCT) have been hampered by small patient numbers. We sought to validate the utility of tumor volume to fetal weight ratio (TFR) as a predictor of poor prognosis and to identify other morphological outcome predictors in a multicenter series.

METHODS:

Records of prenatally diagnosed SCT at three fetal centers from 1986 to 2011 were reviewed. Prenatal imaging characteristics including TFR, morphology, hydrops, and placentomegaly were assessed. Poor prognosis was defined as fetal demise, need for fetal intervention, or perinatal death. Receiver operating characteristic (ROC) analysis was used to select a TFR cutoff value.

RESULTS:

Seventy-nine fetuses with SCT were evaluated. Eleven pregnancies ending in elective termination were excluded. ROC analysis revealed that $TFR > 0.12$ prior to 24 weeks gestation was predictive of poor prognosis (AUC=0.913; Sensitivity=91.7%, Specificity=76.2%, PPV=86.8%; NPV=84.2%). Solid tumor morphology and presence of hydrops were found to be predictors of poor prognosis. None of the factors associated with poor prognosis were independent predictors on multivariate analysis.

CONCLUSION:

This study validates TFR >0.12 prior to 24 weeks gestation as an objective predictor of outcomes in fetuses with SCT that can be easily applied in most clinical settings.

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KEYWORDS:

Fetal; Outcomes; Sacrococcygeal teratoma; TFR

PMID: 25783370 [PubMed - in process]

11.

Am J Obstet Gynecol. 2015 May;212(5):627.e1-9. doi: 10.1016/j.ajog.2014.12.034. Epub 2014 Dec 30.

[Antibiotic prophylaxis for term or near-term premature rupture of membranes: metaanalysis of randomized trials.](#)

Saccone G, Berghella V.

Abstract

OBJECTIVE:

The objective of the study was to evaluate the efficacy of antibiotic prophylaxis in women with term or near-term premature rupture of membranes.

STUDY DESIGN:

Searches were performed in MEDLINE, OVID, Scopus, ClinicalTrials.gov, the PROSPERO International Prospective Register of Systematic Reviews, EMBASE, ScienceDirect.com, MEDSCAPE, and the Cochrane Central Register of Controlled Trials with the use of a combination of key words and text words related to antibiotics, premature rupture of membranes, term, and trials from inception of each database to September 2014. We included all randomized trials of singleton gestations with premature rupture of membranes at 36 weeks or more, who were randomized to antibiotic prophylaxis or control (either placebo or no treatment). The primary outcomes included maternal chorioamnionitis and neonatal sepsis. A subgroup analysis on studies with latency more than 12 hours was planned. Before data extraction, the review was registered with the PROSPERO International Prospective Register of Systematic Reviews (registration number CRD42014013928). The metaanalysis was performed following the Preferred Reporting Item for Systematic Reviews and Meta-analyses statement.

RESULTS:

Women who received antibiotics had the same rate of chorioamnionitis (2.7% vs 3.7%; relative risk [RR], 0.73, 95% confidence interval [CI], 0.48-1.12), endometritis (0.4% vs 0.9%; RR, 0.44, 95% CI, 0.18-1.10), maternal infection (3.1% vs 4.6%; RR, 0.48, 95% CI, 0.19-1.21), and neonatal sepsis (1.0% vs 1.4%; RR, 0.69, 95% CI, 0.34-1.39). In the planned subgroup analysis, women with latency longer than 12 hours, who received antibiotics, had a lower rate of

chorioamnionitis (2.9% vs 6.1%; RR, 0.49, 95% CI, 0.27-0.91) and endometritis (0% vs 2.2%; RR, 0.12, 95% CI, 0.02-0.62) compared with the control group.

CONCLUSION:

Antibiotic prophylaxis for term or near-term premature rupture of membranes is not associated with any benefits in either maternal or neonatal outcomes. In women with latency longer than 12 hours, prophylactic antibiotics are associated with significantly lower rates of chorioamnionitis by 51% and endometritis by 88%.

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KEYWORDS:

antibiotic prophylaxis; chorioamnionitis; metaanalysis; neonatal sepsis; premature rupture of membranes

PMID: 25555659 [PubMed - in process]

12.

Pediatrics. 2015 May;135(5):842-50. doi: 10.1542/peds.2014-3299. Epub 2015 Apr 13.

[Prescription opioid epidemic and infant outcomes.](#)

Patrick SW, Dudley J, Martin PR, Harrell FE, Warren MD, Hartmann KE, Ely EW, Grijalva CG, Cooper WO.

Abstract

BACKGROUND AND OBJECTIVES:

Although opioid pain relievers are commonly prescribed in pregnancy, their association with neonatal outcomes is poorly described. Our objectives were to identify neonatal complications associated with antenatal opioid pain reliever exposure and to establish predictors of neonatal abstinence syndrome (NAS).

METHODS:

We used prescription and administrative data linked to vital statistics for mothers and infants enrolled in the Tennessee Medicaid program between 2009 and 2011. A random sample of NAS cases was validated by medical record review. The association of antenatal exposures with NAS was evaluated by using multivariable logistic regression, controlling for maternal and infant characteristics.

RESULTS:

Of 112 029 pregnant women, 31 354 (28%) filled ≥ 1 opioid prescription. Women prescribed opioid pain relievers were more likely than those not prescribed opioids ($P < .001$) to have depression (5.3% vs 2.7%), anxiety disorder (4.3% vs 1.6%) and to smoke tobacco (41.8% vs 25.8%). Infants with NAS and opioid-exposed infants were more likely than unexposed infants to be born at a low birth weight (21.2% vs 11.8% vs 9.9%; $P < .001$). In a multivariable model, higher cumulative opioid exposure for short-acting preparations ($P < .001$), opioid type ($P <$

.001), number of daily cigarettes smoked ($P < .001$), and selective serotonin reuptake inhibitor use (odds ratio: 2.08 [95% confidence interval: 1.67-2.60]) were associated with greater risk of developing NAS.

CONCLUSIONS:

Prescription opioid use in pregnancy is common and strongly associated with neonatal complications. Antenatal cumulative prescription opioid exposure, opioid type, tobacco use, and selective serotonin reuptake inhibitor use increase the risk of NAS.

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KEYWORDS:

neonatal abstinence syndrome; neonatal drug withdrawal syndrome; neonatal opioid withdrawal syndrome; opioid pain reliever

PMID: 25869370 [PubMed - in process] PMID: PMC4411781 [Available on 2016-05-01]

13.

J Perinatol. 2015 May;35(5):328-31. doi: 10.1038/jp.2014.214. Epub 2014 Dec 4.

[Early initiation of low-dose aspirin for reduction in preeclampsia risk in high-risk women: a secondary analysis of the MFMU High-Risk Aspirin Study.](#)

Moore GS, Allshouse AA, Post AL, Galan HL, Heyborne KD.

Abstract

OBJECTIVE:

Early initiation of low-dose aspirin (LDA) may reduce preeclampsia risk. We sought to determine whether LDA was beneficial when initiated $<17w0d$, within a trial of high-risk women enrolled $<26w0d$.

STUDY DESIGN:

Secondary analysis of the Maternal-Fetal Medicine Units High-Risk Aspirin study, including women enrolled $<17w0d$, randomized to LDA (60 mg day⁻¹) or placebo with chronic hypertension (CHTN, $n=186$), diabetes ($n=191$) or prior preeclampsia ($n=146$). The primary outcome was preeclampsia at any time in pregnancy, secondary outcomes were early preeclampsia ($<34w0d$), late preeclampsia ($\geq 34w$), small for gestational age (SGA; neonatal birthweight $<10th$ %) and composite (early preeclampsia or SGA). Outcomes were compared by exact X^2 -tests.

RESULTS:

Baseline characteristics were similar between treatment groups. Aspirin was associated with a lower rate of late-onset preeclampsia $\geq 34w$ (17.36% vs 24.42%, $P=0.047$), with a 41% reduction in women with CHTN (18.28% vs 31.18%, $P=0.041$). There were no other significant differences in the outcome.

CONCLUSION:

Aspirin initiated <17w0d reduced the risk for late-onset preeclampsia by 29% supporting the practice of early initiation of aspirin in high-risk women.

PMID: 25474553 [PubMed - in process]

14.

J Perinatol. 2015 May;35(5):349-52. doi: 10.1038/jp.2014.215. Epub 2014 Nov 27.

[Are there modifiable risk factors that may predict the occurrence of brachial plexus injury?](#)

Zuarez-Easton S, Zafran N, Garmi G, Nachum Z, Salim R.

Abstract

OBJECTIVE:

To identify risk factors, particularly modifiable, associated with brachial plexus injury.

STUDY DESIGN:

A retrospective case-control study conducted at a single hospital between the years 1993 and 2012. All neonates who were diagnosed of brachial plexus injury were included. A control group matched at a ratio of 1:2 was randomly selected. Demographic and obstetric data were obtained from the hospital discharge register with ICD-9 codes and crosschecked with the labor medical records. All medical files were manually checked and validated. A stepwise logistic regression model was performed to identify independent predictors for brachial plexus injury before delivery among those found significant in the univariate analysis.

RESULTS:

Of all 83 806 deliveries that took place during this period, 144 cases of brachial plexus injury were identified (1.7/1000 deliveries). Overall, 142 cases and 286 controls had available data. Among the study group, 41 (28.9%) had documented shoulder dystocia compared with 1 (0.4%) among the controls ($P<0.0001$). Logistic regression analysis revealed that maternal age above 35 years ($P=0.01$; odds ratio (OR) 2.7; 95% confidence interval (CI) 1.3 to 5.7), estimated fetal weight before delivery ($P<0.0001$; OR 2.5; 95% CI 1.7 to 3.8, for each 500 g increase), vaginal birth after cesarean ($P=0.02$; OR 3.3; 95% CI 1.2 to 8.8) and vacuum extraction ($P=0.02$; OR 3.6; 95% CI 1.2 to 10.3) were all found to be independent predictors for developing brachial plexus injury. When stratifying the analysis according to parity, vacuum delivery was found to be an independent risk factor only among primiparous women (OR 6.0; 95% CI 1.7 to 21.6).

CONCLUSIONS:

The findings suggest that very few factors contributing to brachial plexus injury are modifiable. For that reason, it remains an unpredictable and probably an unavoidable event.

PMID: 25429385 [PubMed - in process]