

Revue bibliographie
Sur le cordon ombilical (quand le couper)
<http://afar.info>

Cette version du 23 juillet 2012 comprend 4 parties

- 1 - Articles originaux (18 pages)
- 2 - Méta-analyses, revues, mémoire/thèse, éditorial (11 pages)
- 3 - Articles sur les mesures au cordon après la naissance (pH...) (8 pages)
- 4 - Bibliographie sur les naissances Lotus (1 page)

Effect of a two-component intervention to change hospital practice from early to delayed umbilical cord clamping in the Peruvian Amazon

Type Article de revue

Auteur Brittany Blouin

Auteur Mary E Penny

Auteur Martin Casapia

Auteur Eder Aguilar

Auteur Hermán Silva

Auteur Serene A Joseph

Auteur Hilary M Creed-Kanashiro

Auteur Mathieu Maheu-Giroux

Auteur Theresa W Gyorkos

Résumé **OBJECTIVE** To investigate the effect of a two-component intervention to change hospital practice with regard to the timing of umbilical cord clamping. **METHODS** A pre-/post-study design was used to measure the effect of a two-component intervention on mean time to clamp the umbilical cord. The study took place at Hospital Iquitos "César Garayar García" in Iquitos, Peru. A total of 224 women were recruited from the hospital labor room: 112 pre-intervention, from 18 May-3 June 2009, and 112 post-intervention, from 6-20 July 2009. The intervention consisted of 1) a "best practice" three-day training workshop on birthing, and 2) a hospital directive. All deliveries were observed and the time between delivery of the first shoulder and clamping of the umbilical cord was measured with a digital stopwatch. **RESULTS** The mean time between delivery and cord clamping before the intervention was 56.8 seconds (95% confidence interval [CI]: 51.0, 62.7). This increased to 169.8 seconds (95% CI: 153.8, 185.8) following the intervention. The difference in mean time to clamp remained significant in multivariate analyses (β adjusted = 113.2 seconds, 95% CI: 96.6, 129.9). **CONCLUSIONS** Hospital policy and practice can be successfully changed from early to delayed umbilical cord clamping using a simple, two-component intervention.

Publication Revista panamericana de salud pública = Pan American journal of public health

Volume 29

Numéro 5

Pages 322-328

Date May 2011

Abrév. de revue Rev. Panam. Salud Publica

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Marqueurs :

Constriction, Delivery, Obstetric, Female, Humans, Midwifery, Nurse's Practice Patterns, Peru, Pregnancy, Time Factors, Umbilical Cord, Young Adult

Umbilical cord blood acid–base and gas analysis after early versus delayed cord clamping in neonates at term

Type Article de revue

Auteur Catalina De Paco

Auteur Jesús Florido

Auteur Mari Garrido

Auteur Sonia Prados

Auteur Luis Navarrete

Résumé Objective To compare umbilical cord acid–base status and blood gas analysis between umbilical cords clamped within 10 s and at 2 min of delivery. Methods A total of 158 healthy full-term mothers were randomly assigned to an early clamping (<10 s post-delivery, n = 79) or delayed clamping (2 min post-delivery, n = 79) group. After application of inclusion criteria, umbilical vein blood acid–base status and gases were analyzed in 65 early clamped and 51 delayed clamped cords. Fewer cases could be examined in the umbilical artery: 55 cords in the early clamping group and 44 in the delayed one. Results Acid–base and gas analysis results did not significantly differ between the groups in the umbilical vein or umbilical artery, with the exception of a higher (p < 0.001) mean umbilical artery pO₂ value in the delayed versus early clamping group. No significant differences in umbilical vein or artery pCO₂ or HCO₃[–] values were observed between the early and delayed clamp groups. Conclusions A delay of 2 min before umbilical cord clamping does not significantly change acid–base and gas analysis results, with the exception of a higher mean umbilical artery pO₂ value in the delayed clamping group.

Publication Archives of Gynecology and Obstetrics

Volume 283

Numéro 5

Pages 1011-1014

Date 2011

DOI 10.1007/s00404-010-1516-z

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URL <http://www.springerlink.com/content/338qv81g641582x2/abstract/>

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Marqueurs :

Medicine

Pièces jointes

Measuring placental transfusion for term births: weighing babies with cord intact

Type Article de revue

Auteur D Farrar

Auteur R Airey

Auteur Gr Law

Auteur D Tuffnell

Auteur B Cattle

Auteur L Duley

Résumé Please cite this paper as: Farrar D, Airey R, Law G, Tuffnell D, Cattle B, Duley L. Measuring placental transfusion for term births: weighing babies with cord intact. BJOG 2011;118:70–75. Objective To estimate the volume and duration of placental transfusion at term. Design Prospective observational study. Setting Maternity unit in Bradford, UK. Population Twenty-six term births. Methods Babies were weighed with umbilical cord intact using digital scales that record an average weight every 2 seconds. Placental transfusion was calculated from the change in weight between birth and either cord clamping or when weighing stopped. Start and end weights were estimated using both a B-spline and inspection of graphs. Weight was converted to volume, 1 ml of blood weighing 1.05 g. Main outcome measures Volume and duration of placental transfusion. Results Twenty-six babies were weighed. Start weights were difficult to determine because of artefacts in the data as the baby was placed on the scales and wrapped. The mean difference in weight was 116 g [95% confidence interval (CI), 72–160 g] using the B-spline and 87 g (95% CI, 64–110 g) using inspection. Converting this to the mean volume of placental transfusion gave 110 ml (95% CI, 69–152 ml) and 83 ml (95% CI, 61–106 ml), respectively. Placental transfusion was usually complete by 2 minutes, but sometimes continued for up to 5 minutes. Based on the B-spline, placental transfusion contributed 32 ml (95% CI, 30–33 ml) per kilogram of birth weight to blood volume, but 24 ml (95% CI, 19–32 ml) based on inspection. This equates to 40% (95% CI, 37–42%) and 30% (24–40%), respectively, of total potential blood volume. Conclusion Inspection of the graphs probably underestimates placental transfusion. For term infants, placental transfusion contributes between one-third and one-quarter of total potential blood volume at birth.

Publication BJOG: An International Journal of Obstetrics & Gynaecology

Volume 118

Numéro 1

Pages 70–75

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Langue en

DOI 10.1111/j.1471-0528.2010.02781.x

ISSN 1471-0528

Titre abrégé Measuring placental transfusion for term births

URL <http://onlinelibrary.wiley.com/doi/10.1111/j.1471-0528.2010.02781.x/abstract>

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Autorisations © 2010 The Authors Journal compilation © RCOG 2010 BJOG An International Journal of Obstetrics and Gynaecology

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Marqueurs :

Observational study, placental transfusion, weighing term babies

Pièces jointes

- Full Text PDF
- Snapshot

Effect of timing of umbilical cord clamp on newborns' iron status and its relation to delivery type

Type Article de revue

Auteur Fariba Shirvani

Auteur Mitra Radfar

Auteur Mojgan Hashemieh

Auteur Mohamad Hossein Soltanzadeh

Auteur Hossein Khaledi

Auteur Mohammad Alavi Mogadam

Résumé OBJECTIVE This study was conducted to evaluate the hematological effects of umbilical cord clamp timing and delivery type in term infants 48 hours after birth in Imam Hossein Hospital, Tehran, Iran. METHOD From Oct 2007 - March 2008, 100 mother-infant eligible pairs were selected and divided by cord clamp timing (< or =15 s and >15 s) for hematologic value determination between the two groups. Data analysis was performed with SPSS for Windows statistical package (version 13). RESULTS Maternal hematological status was assessed upon admission to the delivery room. A total of 100 mother-infant pairs were divided into two groups: delayed cord clamp time within 15 s (n=70) or early cord clamp time [15 s after delivery (n=30)]. The groups had similar demographic and biomedical characteristics at baseline. Forty-eight hours after delivery the mean infant hemoglobin (Hgb; 16.08 gm/dL vs. 14.5 gm/dL; P<0.001) and hematocrit (Hct 47.6 vs. 42.8; P<0.001) levels were significantly higher in the delayed clamping group. There was no significant difference in ferritin levels (214.7 vs. 173.6 ng/dL; P=0.08). Fifty infants were born vaginally and 50 were delivered by cesarean section. Infants delivered vaginally had significantly more delayed cord clamp times (>15 s; P<0.001). CONCLUSION Delaying cord clamping increases the red cell mass in term infants. It is a safe, simple and low cost delivery procedure that should be incorporated in integrated programs that are aimed at reducing iron deficiency anemia in infants in developing countries. Vaginal delivery facilitates this action.

Publication Archives of Iranian medicine

Volume 13

Numéro 5

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Date Sep 2010
Abrév. de revue Arch Iran Med
DOI 010135/AIM.0010
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Marqueurs :

Adolescent, Adult, Anemia, Iron-Deficiency, Cohort Studies, Constriction, Delivery, Obstetric, Female, Ferritins, Fetal Blood, Hematocrit, Hemoglobins, Humans, Infant, Newborn, Iran, Iron, Pregnancy, Regression Analysis, Time Factors, Umbilical Cord, Young Adult

Cord clamping and neurodevelopmental outcome in very low birth weight infants

Type Article de revue
Auteur H. Rabe
Résumé This month's manuscript on a follow-up study of very low birth weight infants treated with either immediate or a brief delay in cord clamping time is the first report of its kind.1 In the recent decades, more than 10 studies have been published on a slight delay in clamping the umbilical cord in preterm infants, ranging from 30 to 120 s.2 However, none of the recent studies has had neurodevelopmental follow-up as part of the study protocol. Immediate cord clamping has come into practice as part of an active management of the third stage of labor in a number of developed countries.
Publication Journal of Perinatology
Volume 30
Numéro 1
Pages 1-1
Date 01/01/2010
Langue en
DOI 10.1038/jp.2009.177
ISSN 0743-8346
URL <http://www.nature.com/jp/journal/v30/n1/full/jp2009177a.html>
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Autorisations © 2010 Nature Publishing Group
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Marqueurs :

congenital, Gestational Age, JPER, maternal-fetal, neonate, neonatology, perinatal, perinatology, premature, preterm

Timing of umbilical cord clamping: New thoughts on an old discussion.

Type Article de revue

Auteur Gemma Arca

Auteur Francesc Botet

Auteur Montse Palacio

Auteur Xavier Carbonell-Estrany

Résumé The optimal time to clamp the umbilical cord in preterm and full-term neonates after birth continues to be a matter of debate. A review of randomised controlled trials comparing the effects of early versus late cord clamping on maternal and infant outcomes was performed to assess data in favor of immediate or delayed clamping. Although there is no conclusive evidence, delayed cord clamping seems to be beneficial in preterm and full-term neonates without compromising the initial postpartum adaptation phase or affecting the mother in the short term. However, further randomised clinical studies are needed to confirm the benefits of delayed cord clamping.

Publication The journal of maternal-fetal & neonatal medicine : the official journal of the European Association of Perinatal Medicine, the Federation of Asia and Oceania Perinatal Societies, the International Society of Perinatal Obstetricians

Date Janvier 2010

Date d'ajout Wednesday, May 19, 2010 9:28:22 PM

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Active management of the third stage of labour: prevention and treatment of postpartum hemorrhage..

Type Article de revue

Auteur Dean Leduc

Auteur Vyta Senikas

Auteur Andr © B Lalonde

Auteur Charlotte Ballerman

Auteur Anne Biringer

Auteur Martina Delaney

Auteur Louise Duperron

Auteur Isabelle Girard

Auteur Donna Jones

Auteur Lily Shek-Yun Lee

Auteur Debra Shepherd

Auteur Kathleen Wilson

Auteur Clinical Practice Obstetrics Committee

Auteur Society of Obstetricians

Auteur Gynaecologists of Canada

Résumé **OBJECTIVE:** To review the clinical aspects of postpartum hemorrhage (PPH) and provide guidelines to assist clinicians in the prevention and management of PPH. These guidelines are an update from the previous Society of Obstetricians and Gynaecologists of Canada (SOGC) clinical practice guideline on PPH, published in April 2000. **EVIDENCE:** Medline, PubMed, the Cochrane Database of Systematic Reviews, ACP Journal Club, and BMJ Clinical Evidence were searched for relevant articles, with concentration on randomized controlled trials (RCTs), systematic reviews, and clinical practice guidelines published between 1995 and 2007. Each article was screened for relevance and the full text acquired if determined to be relevant. Each full-text article was critically appraised with use of the Jadad Scale and the levels of evidence definitions of the Canadian Task Force on Preventive Health Care. **VALUES:** The quality of evidence was rated with use of the criteria described by the Canadian Task Force on Preventive Health Care. **SPONSOR:** The Society of Obstetricians and Gynaecologists of Canada. **RECOMMENDATIONS:** Prevention of Postpartum Hemorrhage 1. Active management of the third stage of labour (AMTSL) reduces the risk of PPH and should be offered and recommended to all women. (I-A) 2. Oxytocin (10 IU), administered intramuscularly, is the preferred medication and route for the prevention of PPH in low-risk vaginal deliveries. Care providers should administer this medication after delivery of the anterior shoulder. (I-A) 3. Intravenous infusion of oxytocin (20 to 40 IU in 1000 mL, 150 mL per hour) is an acceptable alternative for AMTSL. (I-B) 4. An IV bolus of oxytocin, 5 to 10 IU (given over 1 to 2 minutes), can be used for PPH prevention after vaginal birth but is not recommended at this time with elective Caesarean section. (II-B) 5. Ergonovine can be used for prevention of PPH but may be considered second choice to oxytocin owing to the greater risk of maternal adverse effects and of the need for manual removal of a retained placenta. Ergonovine is contraindicated in patients with hypertension. (I-A) 6. Carbetocin, 100 microg given as an IV bolus over 1 minute, should be used instead of continuous oxytocin infusion in elective Caesarean section for the prevention of PPH and to decrease the need for therapeutic uterotonics. (I-B) 7. For women delivering vaginally with 1 risk factor for PPH, carbetocin 100 microg IM decreases the need for uterine massage to prevent PPH when compared with continuous infusion of oxytocin. (I-B) 8. Ergonovine, 0.2 mg IM, and misoprostol, 600 to 800 microg given by the oral, sublingual, or rectal route, may be offered as alternatives in vaginal deliveries when oxytocin is not available. (II-1B) 9. Whenever possible, delaying cord clamping by at least 60 seconds is preferred to clamping earlier in premature newborns (< 37 weeks' gestation) since there is less intraventricular hemorrhage and less need for transfusion in those with late clamping. (I-A) 10. For term newborns, the possible increased risk of neonatal jaundice requiring phototherapy must be weighed against the physiological benefit of greater hemoglobin and iron levels up to 6 months of age conferred by delayed cord clamping. (I-C) 11. There is no evidence that, in an uncomplicated delivery without bleeding, interventions to accelerate delivery of the placenta before the traditional 30 to 45 minutes will reduce the risk of PPH. (II-2C) 12. Placental cord drainage cannot be recommended as a routine practice since the evidence for a reduction in the duration of the third stage of labour is limited to women who did not receive oxytocin as part of the management of the third stage. There is no evidence that this intervention prevents PPH. (II-1C) 13. Intraumbilical cord injection of misoprostol (800 microg) or oxytocin (10 to 30 IU) can be considered as an alternative intervention before manual removal of the placenta. (II-2C) **TREATMENT OF PPH:** 14. For blood loss estimation, clinicians should use clinical markers (signs and symptoms) rather than a visual estimation. (III-B) 15. Management of ongoing PPH

requires a multidisciplinary approach that involves maintaining hemodynamic stability while simultaneously identifying and treating the cause of blood loss. (III-C) 16. All obstetric units should have a regularly checked PPH emergency equipment tray containing appropriate equipment. (II-2B) 17. Evidence for the benefit of recombinant activated factor VII has been gathered from very few cases of massive PPH. Therefore this agent cannot be recommended as part of routine practice. (II-3L) 18. Uterine tamponade can be an efficient and effective intervention to temporarily control active PPH due to uterine atony that has not responded to medical therapy. (III-L) 19. Surgical techniques such as ligation of the internal iliac artery, compression sutures, and hysterectomy should be used for the management of intractable PPH unresponsive to medical therapy. (III-B) Recommendations were quantified using the evaluation of evidence guidelines developed by the Canadian Task Force on Preventive Health Care (Table 1).

Publication Journal of obstetrics and gynaecology Canada : JOGC = Journal d'obstétrique et gynécologie du Canada : JOGC

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Notes :

9. Whenever possible, delaying cord clamping by at least 60 seconds is preferred to clamping earlier in premature newborns (< 37 weeks' gestation) since there is less intraventricular hemorrhage and less need for transfusion in those with late clamping. (I-A) 10. For term newborns, the possible increased risk of neonatal jaundice requiring phototherapy must be weighed against the physiological benefit of greater hemoglobin and iron levels up to 6 months of age conferred by delayed cord clamping. (I-C) 11. There is no evidence that, in an uncomplicated delivery without bleeding, interventions to accelerate delivery of the placenta before the traditional 30 to 45 minutes will reduce the risk of PPH. (II-2C)

Timing of umbilical cord clamping and neonatal haematological status.

Type Article de revue

Auteur Riffat Jaleel

Auteur Farah Deeba

Auteur Ayesha Khan

Résumé **OBJECTIVES:** To determine the effect of delayed umbilical cord clamping on Hb (haemoglobin) and bilirubin levels of neonates and to identify newborn babies with anaemia and refer them for treatment. **METHODS:** This Randomized Controlled Trial was conducted in the Department of Obstetrics and Gynaecology, Unit V, Dow Medical College and Lyari General Hospital and Department of Pathology, Lyari General Hospital, between 1st November, 2006 and 15th July, 2007. Patients admitted to labour ward were selected according to inclusion criteria of the study. They were randomly allocated to 2 groups. Group A included women in whom umbilical cord was clamped immediately after birth. In Group B, clamping was delayed until cessation of pulsations in the cord. After cutting the cord, sample of blood was collected from the cut end of cord of the newborn for Hb and bilirubin.

After 6 hours of birth, another sample of blood was drawn from antecubital vein for serum bilirubin. Samples were sent to laboratory for analysis. All data were entered and analyzed using SPSS version 11. **RESULTS:** Two hundred women were studied, 100 in each of the 2 groups. Mean maternal Hb was 9.75 g/dl in Group A and 9.95 g/dl in Group B. The average neonatal Hb was 14.1 g/dl in Group A and 15.2 g/dl in Group B ($p = 0.008$). In all 49% neonates in Group A and 37% in Group B had Hb < 14 g/dl. Serum bilirubin values at birth and at 6 hours of birth were 1.8 mg/dl and 2.5 mg/dl for Group A and 1.9 mg/dl and 2.7 mg/dl for Group B, respectively. The difference in bilirubin after 6 hours in the 2 groups was insignificant ($p = 0.186$). **CONCLUSION:** Delayed umbilical cord clamping at birth seems to be safe and can be expected to reduce the prevalence of anaemic newborn babies in our community.

Publication JPMA. The Journal of the Pakistan Medical Association

Volume 59

Numéro 7

Pages 468-70

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Delayed cord clamping: advantages for infants.

Type Article de revue

Auteur Margi Coggins

Auteur Judith Mercer

Publication Nursing for women's health

Volume 13

Numéro 2

Pages 132-9

Date Avril 2009

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The effect of early and late umbilical cord clamping on neonatal hematocrit

Type Article de revue

Auteur A Jahazi

Auteur M Kordi

Auteur N B Mirbehbahani

Auteur S R Mazloom

Résumé **OBJECTIVE:** To compare the effect of early and late cord clamping (LCC) on neonatal hematocrit at 2 and 18 h of life. **STUDY DESIGN:** In this double-blind randomized trial, 64 healthy full-term vaginally born neonates were randomly allocated to either early (30 s) or late (3 min) umbilical cord clamping. During the interval between delivery and cord clamping, the attendant held the neonate supine at the level of the introitus. Neonatal venous hematocrit was measured at 2

and 18 h of life. **RESULT:** Neonatal hematocrit at 2 h of life (61+/-4.9 vs 61.6+/-4.5%) and 18 h of life (56.9+/-4.1 vs 56.2+/-3.9%) was not significantly different between the two groups. This was also true for neonatal polycythemia (20 vs 23.5%). In the LCC group, placental residual blood volume (PRBV) was 39.5% lower and estimated neonatal blood volume (ENBV) was 7.1% higher than that in the early cord clamping (ECC) group ($P<0.001$). **CONCLUSION:** Late cord clamping does not lead to a significant difference in the hematocrit level of the neonate or neonatal polycythemia, but is associated with a significant increase in ENBV and a significant decrease in PRBV. Further trials should examine the effect of delaying cord clamping for a longer period of time or changing the position that the neonate is held in to determine whether these variations result in more clinically significant results.

Publication Journal of Perinatology: Official Journal of the California Perinatal Association
Volume 28
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Pages 523-525
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DOI 10.1038/jp.2008.55
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Marqueurs :

Anemia, Neonatal, Constriction, Delivery, Obstetric, Double-Blind Method, Female, Hematocrit, Humans, Infant, Newborn, Placenta, Polycythemia, Term Birth, Time Factors, Umbilical Cord

[Delayed cord clamping in the interest of the newborn child]

Type Article de revue
Auteur S A Scherjon
Auteur Y Smit
Résumé The importance of delayed cord clamping, both for the preterm and for the term newborn, for the prevention of neonatal anaemia (during the neonatal period and/or at the age of 3 months) and furthermore to reduce the need of blood transfusions, has recently been demonstrated in controlled clinical studies and meta-analyses. Physiological and pathophysiological factors also provide a rationale for delayed cord clamping: neonatal blood volume may increase by 32% if cord clamping is delayed until the umbilical cord has completely stopped pulsating. A slow transition, involving closure of the ductus arteriosus and the foramen ovale cordis and gradual filling of the neonatal systemic circulation, contributes to the opening of the alveoli due to perfusion of the alveolar capillaries. No disadvantages, such as polycythaemia or hyperbilirubinaemia,

have been described with regard to preterm neonates, whereas the incidence of intracranial haemorrhages is reduced. Also for the mother, no disadvantages of late clamping have been determined. As a standard procedure, the baby's umbilical cord should not be clamped until at least 3 minutes have passed. One should wait at least 30 seconds during the birth of children for whom a more active approach is necessary. Of all people, these children will benefit from a good Hb level.

Publication Nederlands Tijdschrift Voor Geneeskunde
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Pages 1409-1412
Date Jun 21, 2008
Abrév. de revue Ned Tijdschr Geneeskd
ISSN 0028-2162
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Marqueurs :

Constriction, Delivery, Obstetric, Fetal Blood, Hemoglobins, Humans, Infant, Newborn, Infant, Premature, Perinatal Care, Polycythemia, Risk Factors, Term Birth, Time Factors, Umbilical Cord

Early versus late cord clamping: effects on peripheral blood flow and cardiac function in term infants

Type Article de revue
Auteur Patrizia Zaramella
Auteur Federica Freato
Auteur Valentina Quaresima
Auteur Silvia Secchieri
Auteur Anna Milan
Auteur Davide Grisafi
Auteur Lino Chiandetti
Résumé BACKGROUND: In the debate on the best cord clamping time in newborn infants, we hypothesized that late cord clamping enables an increased volemia due to blood transfer to the newborn from the placenta. AIM: To assess whether clamping time can affect limb perfusion and heart hemodynamics in a group of 22 healthy term newborn infants. STUDY DESIGN: A case-control study. SUBJECTS: Eleven early-clamped (at 30 s) vaginally-delivered newborn infants were compared with eleven late-clamped (at 4 min) newborns. OUTCOME MEASURES: The two groups were studied using near-infrared spectroscopy and M-mode echocardiography. RESULTS: Late cord clamping coincided with a

higher hematocrit (median 62% versus 54%) and hemoglobin concentration (median 17.2 versus 15 g/dL), whilst there were no changes in bilirubin level. Echocardiography showed a larger end-diastolic left ventricle diameter (1.7 cm median value versus 1.5) coupled with unvaried shortening and ejection fraction values. There were no changes in calf blood flow, oxygen delivery, oxygen consumption or fractional oxygen extraction calculated from the NIRS measurements, or in foot perfusion index. **CONCLUSIONS:** Our results demonstrated that late cord clamping coincides with an increased placental transfusion, expressed by higher hematocrit and hemoglobin values, and larger left ventricle diameter at the end of the diastole, with no changes in peripheral perfusion or oxygen metabolism.

Publication Early Human Development

Volume 84

Numéro 3

Pages 195-200

Date Mar 2008

Abrév. de revue Early Hum. Dev

DOI 10.1016/j.earlhumdev.2007.04.003

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Titre abrégé Early versus late cord clamping

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Blood Flow Velocity, Case-Control Studies, Constriction, Coronary Circulation, Extremities, Female, Heart Function Tests, Humans, Infant, Newborn, Ligation, Pregnancy, Spectroscopy, Near-Infrared, Time Factors, Umbilical Cord

Delayed cord clamping in preterm infants delivered at 34 36 weeks' gestation: a randomised controlled trial

Type Article de revue

Auteur C A Ultee

Auteur J van der Deure

Auteur J Swart

Auteur C Lasham

Auteur A L van Baar

Résumé **BACKGROUND** Even mild iron deficiency and anaemia in infancy may be associated with cognitive deficits. A delay in clamping the cord improves haematocrit levels and results in greater vascular stability and less need for packed cell transfusions for anaemia in the first period after birth. Follow-up data

on haemoglobin levels after the neonatal period were not available. **OBJECTIVE** To provide neonatal and follow-up data for the effects of early or delayed clamping of the cord. **METHODS** 37 premature infants (gestational age 34 weeks, 0 days-36 weeks, 6 days) were randomly assigned to one of two groups in the first hour after birth, and at 10 weeks of age. In one group the umbilical cord was clamped within 30 seconds (mean (SD) 13.4 (5.6)) and in the other, it was clamped at 3 minutes after delivery. In the neonatal period blood glucose and haemoglobin levels were determined. At 10 weeks of age haemoglobin and ferritin levels were determined. **RESULTS** The late cord-clamped group showed consistently higher haemoglobin levels than the early cord-clamped group, both at the age of 1 hour (mean (SD) 13.4 (1.9) mmol/l vs 11.1 (1.7) mmol/l), and at 10 weeks (6.7 (0.75) mmol/l vs 6.0 (0.65) mmol/l). No relationship between delayed clamping of the umbilical cord and pathological jaundice or polycythaemia was found. **CONCLUSION** Immediate clamping of the umbilical cord should be discouraged.

Publication Archives of disease in childhood. Fetal and neonatal edition

Volume 93

Numéro 1

Pages F20-23

Date Jan 2008

Abrév. de revue Arch. Dis. Child. Fetal Neonatal Ed.

DOI 10.1136/adc.2006.100354

ISSN 1468-2052

Titre abrégé Delayed cord clamping in preterm infants delivered at 34-36 weeks' gestation

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Blood Glucose, Constriction, Ferritins, Gestational Age, Hemoglobins, Humans, Infant, Infant, Newborn, Infant, Premature, Jaundice, Neonatal, Perinatal Care, Polycythemia, Time Factors, Treatment Outcome, Umbilical Cord

A randomized clinical trial comparing immediate versus delayed clamping of the umbilical cord in preterm infants: short-term clinical and laboratory endpoints

Type Article de revue

Auteur Ronald G. Strauss

Auteur Donald M. Mock

Auteur Karen J. Johnson

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Auteur Leon F. Burmeister

Auteur M. Bridget Zimmerman

Auteur Edward F. Bell

Auteur Asha Rijhsinghani

Résumé **BACKGROUND:**Most neonates less than 1.0 kg birth weight need red blood cell (RBC) transfusions. Delayed clamping of the umbilical cord 1 minute after delivery transfuses the neonate with autologous placental blood to expand blood volume and provide 60 percent more RBCs than after immediate clamping. This study compared hematologic and clinical effects of delayed versus immediate cord clamping.**STUDY DESIGN AND METHODS:** After parental consent, neonates not more than 36 weeks' gestation were randomly assigned to cord clamping immediately or at 1 minute after delivery. The primary endpoint was an increase in RBC volume/mass, per biotin labeling, after delayed clamping. Secondary endpoints were multiple clinical and laboratory comparisons over the first 28 days including Score for Neonatal Acute Physiology (SNAP).**RESULTS:** Problems with delayed clamping techniques prevented study of neonates of less than 30 weeks' gestation, and 105 neonates 30 to 36 weeks are reported. Circulating RBC volume/mass increased ($p = 0.04$) and weekly hematocrit (Hct) values were higher ($p < 0.005$) after delayed clamping. Higher Hct values did not lead to fewer RBC transfusions ($p = 0.70$). Apgar scores after birth and daily SNAP scores were not significantly different ($p = 0.22$). Requirements for mechanical ventilation with oxygen were similar. More ($p = 0.03$) neonates needed phototherapy after delayed clamping, but initial bilirubin levels and extent of phototherapy did not differ.**CONCLUSIONS:** Although a 1-minute delay in cord clamping significantly increased RBC volume/mass and Hct, clinical benefits were modest. Clinically significant adverse effects were not detected. Consider a 1-minute delay in cord clamping to increase RBC volume/mass and RBC iron, for neonates 30 to 36 weeks' gestation, who do not need immediate resuscitation.

Publication Transfusion

Volume 48

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Titre abrégé A randomized clinical trial comparing immediate versus delayed clamping of the umbilical cord in preterm infants

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Umbilical cord clamping after birth

Type Article de revue

Auteur A. Weeks

Publication BMJ

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Abrév. de revue BMJ

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Notes :

éditorial

Evidence-based practices for the fetal to newborn transition.

Type Article de revue

Auteur Judith S Mercer

Auteur Debra A Erickson-Owens

Auteur Barbara Graves

Auteur Mary Mumford Haley

Résumé Many common care practices during labor, birth, and the immediate postpartum period impact the fetal to neonatal transition, including medication used during labor, suctioning protocols, strategies to prevent heat loss, umbilical cord clamping, and use of 100% oxygen for resuscitation. Many of the care practices used to assess and manage a newborn immediately after birth have not proven efficacious. No definitive outcomes have been obtained from studies on maternal analgesia effects on the newborn. Although immediate cord clamping is common practice, recent evidence from large randomized, controlled trials suggests that delayed cord clamping may protect the infant against anemia. Skin-to-skin care of the newborn after birth is recommended as the mainstay of newborn thermoregulation and care. Routine suctioning of infants at birth was not been found to be beneficial. Neither amnioinfusion, suctioning of meconium-stained babies after the birth of the head, nor intubation and suctioning of vigorous infants prevents meconium aspiration syndrome. The use of 100% oxygen at birth to resuscitate a newborn causes increased oxidative stress and does not appear to offer benefits over room air. This review of evidence on newborn care practices reveals that more often than not, less intervention is better. The recommendations support a gentle, physiologic birth and family-centered care of the newborn.

Publication Journal of midwifery & women's health

Volume 52

Numéro 3

Pages 262-72

Date 2007 May-Jun

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Delayed cord clamping and haemoglobin levels in infancy: a randomised controlled trial in term babies

Type Article de revue

Auteur Patrick van Rheenen

Auteur Lette de Moor

Auteur Sanne Eschbach

Auteur Hannah de Grooth

Auteur Bernard Brabin

Résumé Objectives This study was carried out to assess whether delaying umbilical cord clamping is effective in improving the haematological status of term infants living in a malaria-endemic area, and whether this is associated with complications in infants and mothers. Methods We randomly assigned women delivering term babies in Mpongwe Mission Hospital, Zambia, to delayed cord clamping (DCC, n = 46) or immediate cord clamping (controls, n = 45) and followed their infants on a bi-monthly basis until the age of 6 months. We compared the haemoglobin (Hb) change from cord values and the proportion of anaemic infants. Secondary outcomes related to infant and maternal safety. Results Throughout the observation period infant Hb levels in both groups declined, but more rapidly in controls than in the DCC group [difference in Hb change from baseline at 4 months 1.1 g/dl, 95% confidence interval (CI) 0.2; 2.1]. By 6 months, this difference had disappeared (0.0 g/dl, 95% CI 22120.9; 0.8). The odds ratio for iron deficiency anaemia in the DCC group at 4 months was 0.3 (95% CI 0.1; 1.0), but no differences were found between the groups at 6 months. No adverse events were seen in infants and mothers. Conclusion Our findings indicate that DCC could help improve the haematological status of term infants living in a malaria-endemic region at 4 months of age. However, the beneficial haematological effect disappeared by 6 months. This simple, free and safe delivery procedure might offer a strategy to reduce early infant anaemia risk, when other interventions are not yet feasible. Objectifs Evaluer si le retardement la coupure du cordon ombilical est efficace pour améliorer le statut hématologique des enfants en bas âge nés à terme, vivant dans une zone endémique pour la malaria et voir si cela est associé à des complications chez les enfants en bas âge et les mères. Méthodes Nous avons aléatoirement appliqué aux femmes donnant naissance à terme dans l'hôpital missionnaire de Mpongwe en Zambie, soit le retardement de la coupure du cordon (n = 46), soit sa coupure immédiate (contrôles, n = 45) et avons suivi deux fois par mois leurs enfants en bas âge jusqu'à l'âge de six mois. Nous avons comparé la variation de l'hémoglobine (Hb) à partir des valeurs initiales du cordon et la proportion d'enfants en bas âge anémiques. Les résultats secondaires concernaient la sûreté infantile et maternelle. Résultats Tout au long de la période d'observation les taux d'hémoglobine infantile dans les deux groupes ont diminués, mais plus rapidement chez les contrôles que dans le groupe avec retardement de la coupure du cordon (différence de variation de Hb à partir de la ligne de base à quatre mois 1,1 g/dl, intervalle de confiance 95% (IC95%): 0,220132,1). A 6 mois, cette différence avait disparu (0,0 g/dl, IC95%: 22120,920130,8). Les rapports de cote (OR) pour l'anémie par insuffisance de fer dans le groupe avec coupure retardée du cordon à quatre mois était 0,3 (IC95%: 0,120131,0), mais aucune différence n'a été

trouvée entre les deux groupes à six mois. Aucun événement adverse n'a été observé chez les enfants en bas âge et les mères. Conclusion Nos résultats indiquent que le retardement de la coupure du cordon pourrait aider à améliorer le statut hématologique des enfants en bas âge nés à terme et vivant dans une région endémique pour la malaria à quatre mois d'âge. Cependant, l'effet bénéfique hématologique a disparu à six mois. Ce procédé simple, sans frais et sûr de l'accouchement pourrait offrir une stratégie pour réduire le risque d'anémie infantile initiale, quand d'autres interventions ne sont pas encore réalisables.

Objetivos Evaluar si el retrasar el pinzamiento del cordón umbilical es efectivo para mejorar el estado hematológico de bebés nacidos a término en áreas endémicas para malaria, y si existe alguna asociación con complicaciones en los niños y en las madres. Métodos Asignamos de forma aleatoria a mujeres que se encontraban en trabajo de parto en el Hospital Mpongwe Mission, en Zambia, a un pinzamiento tardío (PT, n = 46) o a un pinzamiento inmediato (controles, n = 45), y se realizó un seguimiento a los bebés cada dos meses y hasta que cumplieron los seis meses. Comparamos los cambios en hemoglobina a partir de los valores obtenidos en el cordón umbilical y la proporción de neonatos anémicos. Los resultados secundarios estaban relacionados con la seguridad materna e infantil. Resultados A lo largo del periodo de observación los niveles de hemoglobina de ambos grupos de neonatos bajaron, pero más rápidamente en los controles que en el grupo de PT (diferencia en cambio de Hb de la línea de base a los cuatro meses 1.1 g/dl, 95% intervalo de confianza (IC) 0.2; 2.1). A los 6 meses, esta diferencia había desaparecido (0.0 g/dl, 95% CI 22120.9; 0.8). La razón de probabilidades para la anemia por deficiencia de hierro en el grupo PT a los cuatro meses era de 0.3 (95% IC 0.1; 1.0), pero no se hallaron diferencias entre los grupos a los seis meses. No se observaron eventos adversos en niños y neonatos. Conclusión Nuestros resultados indican que el PT podría ayudar a mejorar el estado hematológico a los cuatro meses de edad, de niños nacidos a término que viven en regiones endémicas para malaria. Sin embargo, el efecto hematológico beneficioso desaparece a los seis meses de edad. Este procedimiento durante el parto, es simple, gratis y seguro, y podría ofrecer una estrategia para reducir el riesgo de anemia temprana en neonatos, cuando otras intervenciones aún no son factibles.

Publication Tropical Medicine & International Health

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Titre abrégé Delayed cord clamping and haemoglobin levels in infancy

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Delayed cord clamping may also be beneficial in rich settings

Type Article de revue

Auteur David J R Hutchon

Résumé Delayed cord clamping reduces infant anaemia in resource poor settings.¹ There are, however, other implications, and neonatal anaemia is still important in developed countries. In Darlington we have a guideline to delay cord clamping for at least 40 seconds.² It was a pragmatic decision to make 40 seconds the interval, and the rather longer time as suggested by van Rheenen and Brabin is likely to be closer to the physiological interval. We have also developed a method of resuscitation of the neonate at caesarean section with the cord intact. Although this method has not been included in the guideline there are plans to do so. Fetal distress is a common reason for instrumental delivery or caesarean section. The fetal compromise is often due to cord compression associated with a nuchal cord. A nuchal cord results in compression of the low pressure venous return of oxygenated blood from the placenta. Blood continues to be pumped out by the fetal heart, and the obstructed return from the placenta results in a congested placenta and a depleted fetal blood volume. If the cord is clamped immediately at delivery, although the return from the placenta is now relieved, the excess blood, which is oxygenated blood, never has any opportunity to return to the newborn. In these circumstances it is particularly important to be able to resuscitate the baby with the cord return still intact. Preparation for neonatal resuscitation needs to be made at the same time as preparation for the caesarean section. Every maternity unit in the UK needs to adopt these guidelines. References 1. Van Rheenen PF, Brabin BJ. A practical approach to timing cord clamping in resource poor settings. *BMJ* 2006;333:954-8.(4 November.) 2. Guideline for the management of caesarean section deliveries. www.hutchon.net/NFMMSIG/cordclamp.htm (accessed 9 Nov 2006).

Publication *BMJ* : British Medical Journal

Volume 333

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Pages 1073

Date 2006-11-18

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DOI 10.1136/bmj.39030.733715.3A

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Pièces jointes

- PubMed Central Full Text PDF
- PubMed Central Link

Early versus delayed cord clamping in term and preterm births: a review

Type Article de revue

Auteur Milena Garofalo

Auteur Haim A Abenhaim

Résumé The optimal timing for cord clamping, early versus delayed, in the third stage of labour is a controversial subject. Issues surrounding the timing of cord clamping include gestational age and maternal and neonatal considerations. Delayed cord clamping (DCC) has been shown to increase placental transfusion, leading to an increase in neonatal blood volume at birth of approximately 30%. In the term infant, although this may result in an increase in iron stores, thereby decreasing the risk of anemia, it may adversely increase the risk of jaundice and the need for phototherapy. In the preterm infant, DCC (or even milking of the cord) decreases the need for blood transfusions for anemia, the number of such transfusions, and the risks of intraventricular hemorrhage and late-onset sepsis. Advantages of DCC also include a reduction in alloimmunization in Rh-negative women, although this advantage is theoretical and unproven. We searched multiple databases including PubMed Clinical Queries, Trip Database, Cochrane Systematic Reviews, and UpToDate, as well as published guidelines from the Society of Obstetricians and Gynaecologists of Canada, the American Congress of Obstetricians and Gynecologists, and the Royal College of Obstetricians and Gynaecologists. We preferentially selected systematic reviews and randomized controlled trials for this literature review. Overall, the available evidence appears to suggest that DCC is likely to result in better neonatal outcomes in both term and preterm infants, even in areas where neonatal iron deficiency anemia is rare. However, there is insufficient evidence to date to support a recommendation to delay cord clamping in non-vigorous infants requiring resuscitation. **Résumé** La détermination du moment optimal pour procéder au clampage du cordon (précoce ou différé) au cours du troisième stade du travail constitue un sujet controversé. Parmi les facteurs entourant la détermination du moment optimal pour procéder au clampage du cordon, on trouve l'âge gestationnel et des considérations maternelles et néonatales. Il a été démontré que le clampage différé du cordon (CDC) entraînait une hausse de la transfusion placentaire, menant ainsi à une hausse de la volémie néonatale à la naissance d'environ 30 %. Chez l'enfant né à terme, bien que cela puisse donner lieu à une augmentation des réserves de fer (atténuant ainsi le risque d'anémie), le risque d'ictère et la nécessité de procéder à une photothérapie pourraient également s'en trouver augmentés. Chez l'enfant préterme, le CDC (ou même la compression du cordon en vue d'en extraire le sang) atténue la nécessité de procéder à des transfusions sanguines en raison d'une anémie, réduit le nombre de telles transfusions et entraîne une baisse des risques d'hémorragie intraventriculaire et de septicémie d'apparition tardive. Parmi les avantages du CDC, on trouve également une baisse du taux d'alloimmunisation chez les femmes séronégatives pour le facteur Rh, bien que cet avantage demeure théorique et non prouvé. Nous avons mené des recherches dans de multiples bases de données, dont PubMed Clinical Queries, Trip Database, Cochrane Systematic Reviews et UpToDate, ainsi que dans les directives cliniques publiées par la Société des obstétriciens et gynécologues du Canada, le American Congress of Obstetricians and Gynecologists et le Royal College of Obstetricians and Gynaecologists. Au fin de cette analyse documentaire, nous avons accordé une préférence aux analyses systématiques et aux essais comparatifs randomisés. De façon générale, les données disponibles semblent indiquer que le CDC est susceptible de donner lieu à de meilleures

issues néonatales tant chez les enfants nés à terme que chez les enfants prématurés, même dans les régions où l'anémie ferriprive néonatale est rare. Toutefois, nous ne disposons pas à ce jour de données suffisantes pour recommander de différer le clampage du cordon chez les nouveau-nés non vigoureux qui nécessitent une réanimation.

Publication Journal of obstetrics and gynaecology Canada: JOGC = Journal d'obstétrique et gynécologie du Canada: JOGC

Volume 34

Numéro 6

Pages 525-531

Date Jun 2012

Abrév. de revue J Obstet Gynaecol Can

ISSN 1701-2163

Titre abrégé Early versus delayed cord clamping in term and preterm births

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Pièces jointes

- Garofalo et Abenhaim - 2012 - Early versus delayed cord clamping in term and pre.pdf

Clampage tardif versus clampage précoce du cordon ombilical : quelles conséquences peut avoir le délai du clampage du cordon ombilical ? : revue de la littérature envisageant les aspects maternels et pédiatriques

Type Thèse

Auteur Lucie Frappeau

Résumé Le clampage (et la section) du cordon ombilical à la naissance est de loin l'intervention la plus ancienne et la plus répandue chez les humains. En dépit de cela, le moment optimal du clampage du cordon demeure un sujet de controverse depuis des décennies, et donc engendre l'absence de recommandations à ce sujet. Bien que le clampage précoce du cordon soit considéré actuellement comme une intervention de routine, il reste toutefois une ingérence dans la transition entre les périodes fœtale et néonatale. La problématique de ce mémoire repose sur l'examen des conséquences possibles d'un clampage précoce du cordon ou d'un respect de la physiologie (clampage tardif) sur la santé de la mère et de son enfant. Après la réalisation d'une revue de la littérature, l'ensemble des données disponibles suggère que le clampage tardif est avantageux pour le nouveau-né par l'amélioration de son statut hématologique, bien qu'elle augmente légèrement le risque d'ictère nécessitant une photothérapie. Néanmoins les conséquences maternelles sont très peu envisagées. C'est pourquoi, la prise de décision clinique est difficilement possible. Aussi, les données statistiques ne permettent pas de se positionner clairement en faveur d'une pratique ou d'une autre devant d'importantes différences concernant les définitions primordiales sur lesquelles repose la problématique qui sont clampage précoce et

clampage tardif .

Université UHP - Université Henri Poincaré

Date 01-06-2010

Langue French

Titre abrégé Clampage tardif versus clampage précoce du cordon ombilical

URL http://www.scd.uhp-nancy.fr/docnum/SCDMED_MESF_2010_FRAPPEAU_LUCIE.pdf

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Delayed clamping of the umbilical cord: a review with implications for practice

Type Article de revue

Auteur Gina Eichenbaum-Pikser

Auteur Joanna S Zasloff

Publication Journal of Midwifery & Women's Health

Volume 54

Numéro 4

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DOI 10.1016/j.jmwh.2008.12.012

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Titre abrégé Delayed clamping of the umbilical cord

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Marqueurs :

Constriction, Delivery, Obstetric, Female, Humans, Infant, Newborn, Pregnancy, Time Factors, Umbilical Cord, Young Adult

Effect of timing of umbilical cord clamping of term infants on maternal and neonatal outcomes

Type Chapitre de livre

Éditeur The Cochrane Collaboration

Auteur Susan J McDonald

Auteur Philippa Middleton

Éditeur Susan J McDonald

Résumé Background: Policies for timing of cord clamping vary, with early cord clamping generally carried out in the first 60 seconds after birth, whereas later cord clamping usually involves clamping the umbilical cord greater than one minute after the birth or when cord pulsation has ceased. Objectives: To determine the effects of different policies of timing of cord clamping at delivery of the placenta on maternal and neonatal outcomes. Search strategy: We searched the Cochrane Pregnancy and Childbirth Group's Trials Register (December 2007). Selection criteria: Randomised controlled trials comparing early and late cord clamping. Data collection and analysis: Two review authors independently assessed trial eligibility and quality and extracted data. Main results: We included 11 trials of 2989 mothers and their babies. No significant differences between early and late cord clamping were seen for postpartum haemorrhage or severe postpartum haemorrhage in any of the five trials (2236 women) which measured this outcome (relative risk (RR) for postpartum haemorrhage 500 mls or more 1.22, 95% confidence interval (CI) 0.96 to 1.55). For neonatal outcomes, our review showed both benefits and harms for late cord clamping. Following birth, there was a significant increase in infants needing phototherapy for jaundice (RR 0.59, 95% CI 0.38 to 0.92; five trials of 1762 infants) in the late compared with early clamping group. This was accompanied by significant increases in newborn haemoglobin levels in the late cord clamping group compared with early cord clamping (weighted mean difference 2.17 g/dL; 95% CI 0.28 to 4.06; three trials of 671 infants), although this effect did not persist past six months. Infant ferritin levels remained higher in the late clamping group than the early clamping group at six months. Authors' conclusions: One definition of active management includes directions to administer an uterotonic with birth of the anterior shoulder of the baby and to clamp the umbilical cord within 30-60 seconds of birth of the baby (which is not always feasible in practice). In this review delaying clamping of the cord for at least two to three minutes seems not to increase the risk of postpartum haemorrhage. In addition, late cord clamping can be advantageous for the infant by improving iron status which may be of clinical value particularly in infants where access to good nutrition is poor, although delaying clamping increases the risk of jaundice requiring phototherapy. This record should be cited as: McDonald SJ, Middleton P. Effect of timing of umbilical cord clamping of term infants on maternal and neonatal outcomes. Cochrane Database of Systematic Reviews 2008, Issue 2. Art. No.: CD004074. DOI: 10.1002/14651858.CD004074.pub2 Assessed as up to date: December 31, 2007

Titre du livre Cochrane Database of Systematic Reviews

Lieu Chichester, UK

Éditeur John Wiley & Sons, Ltd

Date 2008-04-23

URL <http://summaries.cochrane.org/CD004074/effect-of-timing-of-umbilical-cord-clamping-at-birth-of-term-infants-on-mother-and-baby-outcomes>

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Notes :

9. Whenever possible, delaying cord clamping by at least 60 seconds is preferred to clamping earlier in premature newborns (< 37 weeks' gestation) since there is less intraventricular hemorrhage and less

need for transfusion in those with late clamping. (I-A) 10. For term newborns, the possible increased risk of neonatal jaundice requiring phototherapy must be weighed against the physiological benefit of greater hemoglobin and iron levels up to 6 months of age conferred by delayed cord clamping. (I-C) 11. There is no evidence that, in an uncomplicated delivery without bleeding, interventions to accelerate delivery of the placenta before the traditional 30 to 45 minutes will reduce the risk of PPH. (II-2C)

Pièces jointes

- Effect of timing of umbilical cord clamping at birth of term infants on mother and baby outcomes | Cochrane Summaries

A Systematic Review and Meta-Analysis of a Brief Delay in Clamping the Umbilical Cord of Preterm Infants

Type Article de revue

Auteur Heike Rabe

Auteur Graham Reynolds

Auteur Jose Diaz-Rossello

Résumé Background: The optimal timing of clamping the umbilical cord in preterm infants at birth is the subject of continuing debate. Objective: To investigate the effects of a brief delay in cord clamping on the outcome of babies born prematurely. Methods: A retrospective meta-analysis of randomised trials in preterm infants was conducted. Data were collected from published studies identified by a structured literature search in EMBASE, PubMed, CINAHL and the Cochrane Library. All infants born below 37 weeks gestation and enrolled into a randomised study of delayed cord clamping (30 s or more) versus immediate cord clamping (less than 20 s) after birth were included. Systematic search and analysis of the data were done according to the methodology of the Cochrane collaboration. Results: Ten studies describing a total of 454 preterm infants were identified which met the inclusion and assessment criteria. Major benefits of the intervention were higher circulating blood volume during the first 24 h of life, less need for blood transfusions ($p = 0.004$) and less incidence of intraventricular hemorrhage ($p = 0.002$). Conclusions: The procedure of a delayed cord clamping time of at least 30 s is safe to use and does not compromise the preterm infant in the initial post-partum adaptation phase.

Publication Neonatology

Volume 93

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Pages 138-144

Date 2008

DOI 10.1159/000108764

ISSN 1661-7819, 1661-7800

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Pièces jointes

- A Systematic Review and Meta-Analysis of a Brief Delay in Clamping the Umbilical Cord of Preterm Infants
- Rabe et al. - 2008 - A Systematic Review and Meta-Analysis of a Brief D.pdf

Late vs early clamping of the umbilical cord in full-term neonates: systematic review and meta-analysis of controlled trials

Type Article de revue

Auteur Eileen K Hutton

Auteur Eman S Hassan

Résumé CONTEXT: With few exceptions, the umbilical cord of every newborn is clamped and cut at birth, yet the optimal timing for this intervention remains controversial. OBJECTIVE: To compare the potential benefits and harms of late vs early cord clamping in term infants. DATA SOURCES: Search of 6 electronic databases (on November 15, 2006, starting from the beginning of each): the Cochrane Pregnancy and Childbirth Group trials register, the Cochrane Neonatal Group trials register, the Cochrane library, MEDLINE, EMBASE, and CINHALL; hand search of secondary references in relevant studies; and contact of investigators about relevant published research. STUDY SELECTION: Controlled trials comparing late vs early cord clamping following birth in infants born at 37 or more weeks' gestation. DATA EXTRACTION: Two reviewers independently assessed eligibility and quality of trials and extracted data for outcomes of interest: infant hematologic status; iron status; and risk of adverse events such as jaundice, polycythemia, and respiratory distress. DATA SYNTHESIS: The meta-analysis included 15 controlled trials (1912 newborns). Late cord clamping was delayed for at least 2 minutes (n = 1001 newborns), while early clamping in most trials (n = 911 newborns) was performed immediately after birth. Benefits over ages 2 to 6 months associated with late cord clamping include improved hematologic status measured as hematocrit (weighted mean difference [WMD], 3.70%; 95% confidence interval [CI], 2.00%-5.40%); iron status as measured by ferritin concentration (WMD, 17.89; 95% CI, 16.58-19.21) and stored iron (WMD, 19.90; 95% CI, 7.67-32.13); and a clinically important reduction in the risk of anemia (relative risk (RR), 0.53; 95% CI, 0.40-0.70). Neonates with late clamping were at increased risk of experiencing asymptomatic polycythemia (7 studies [403 neonates]: RR, 3.82; 95% CI, 1.11-13.21; 2 high-quality studies only [281 infants]: RR, 3.91; 95% CI, 1.00-15.36). CONCLUSIONS: Delaying clamping of the umbilical cord in full-term neonates for a minimum of 2 minutes following birth is beneficial to the newborn, extending into infancy. Although there was an increase in polycythemia among infants in whom cord clamping was delayed, this condition appeared to be benign.

Publication JAMA: The Journal of the American Medical Association

Volume 297

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ISSN 1538-3598

Titre abrégé Late vs early clamping of the umbilical cord in full-term neonates

URL <http://www.ncbi.nlm.nih.gov/pubmed/17374818>

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Notes :

Etudes incluses dans cette revue

full txt <http://jama.ama-assn.org/cgi/content/full/297/11/1241>. Yao AC, Lind J, Vuorenkoski V. Expiratory grunting in the late clamped normal neonate. *Pediatrics*. 1971;48:865-870. [FREE FULL TEXT](#)

32. Chaparro CM, Neufeld LM, Tena Alavez G, Eguia-Liz Cedillo R, Dewey KG. Effect of timing of umbilical cord clamping on iron status in Mexican infants. *Lancet*. 2006;367:1997-2004. [FULL TEXT](#) | [WEB OF SCIENCE](#) | [PUBMED](#)

37. Ceriani Cernadas JM, Carroli G, Pellegrini L, et al. The effect of timing of cord clamping on neonatal venous hematocrit values and clinical outcome at term: a randomized, controlled trial. *Pediatrics*. 2006;117:e779-e786. [FREE FULL TEXT](#)

38. Emhamed MO, Van Rheen P, Brabin BJ. The early effects of delayed cord clamping in term infants born to Libyan mothers. *Trop Doct*. 2004;34:218-222. [WEB OF SCIENCE](#) | [PUBMED](#)

39. Gupta R, Ramji S. Effect of delayed cord clamping on iron stores in infants born to anemic mothers. *Indian Pediatr*. 2002;39:130-135. [PUBMED](#)

40. Nelson NM, Enkin MW, Saigal S, Bennett KJ, Milner R, Sackett DL. A randomized clinical trial of the Leboyer approach to childbirth. *N Engl J Med*. 1980;302:655-660. [ABSTRACT](#)

41. Oxford Midwives Research Group. A study of the relationship between the delivery to cord clamping interval and the time of cord separation. *Midwifery*. 1991;7:167-176. [FULL TEXT](#) | [PUBMED](#)

42. Geethanath RM, Ramji S, Thirupuram S, Rao YN. Effect of timing of cord clamping on the iron status of infants at 3 months. *Indian Pediatr*. 1997;34:103-106. [PUBMED](#)

43. Saigal S, O'Neill A, Surainder Y, Chua L, Usher R. Placental transfusion and hyperbilirubinemia in the premature. *Pediatrics*. 1972;49:406-419. [FREE FULL TEXT](#)
44. Nelle M, Kraus M, Basret G, Linderkamp O. Effects of Leboyer childbirth on left- and right systolic time intervals in healthy term neonates. *J Perinat Med*. 1996;24:513-520. [WEB OF SCIENCE](#) | [PUBMED](#)
45. Abdel Aziz SF, Shaheen MY, Hussein S, Suliman MS. Early cord clamping and its effect on some hematological determinants of blood viscosity in neonates. 1999. http://www.obgyn.net/pb/articles/cordclamping_aziz_0699.htm. Accessibility verified January 19, 2007.
46. Grajeda R, Perez-Escamilla R, Dewey K. Delayed clamping of the umbilical cord improves hematologic status of Guatemalan infants at 2 months of age. *Am J Clin Nutr*. 1997;65:425-431. [FREE FULL TEXT](#)
47. Linderkamp O, Nelle M, Kraus M, Zilow E. The effects of early and late cord clamping on blood viscosity and other haemorheological parameters in full-term neonates. *Acta Paediatr*. 1992;81:745-750. [WEB OF SCIENCE](#) | [PUBMED](#)
48. Nelle M, Zilow E, Kraus M, Bastert G, Linderkamp O. The effect of Leboyer delivery on blood viscosity and other haemorheologic parameters in term neonates. *Am J Obstet Gynecol*. 1993;169:189-193. [WEB OF SCIENCE](#) | [PUBMED](#)
49. Oh W, Lind J. Body temperature of the newborn infant in relation to placental transfusion. *Acta Paediatr Scand*. 1967(suppl 172):137-145. [PUBMED](#)

Timing of Umbilical Cord Clamping at Birth in Full-term Infants

Type Article de revue

Auteur William Oh

Résumé Delayed clamping of the umbilical cord at birth results in placental transfusion. The amount of blood transfusion depends on several factors, including timing of cord clamping, initiation of first breath and cry, gravity, mode of delivery, and intensity of uterine contractions at the end of the second stage of labor. It has been estimated that in a vaginally born full-term infant, delaying cord clamping by 2 to 3 minutes results in an increase in neonatal blood volume of approximately 20 to 30 mL per kilogram of body weight.¹ Cesarean delivery has the same effect but to a lesser extent.² This acute increase in blood volume necessitates physiologic adaptation with transudation of fluid from intravascular to extravascular (primarily interstitial) compartments, including the lung. Transudation of fluid to the interstitial lung tissue results in a lower lung compliance and accounts for the transient increase in respiratory rate observed in these infants during the first few hours of life.³ The additional red blood cells

given to the infant, as well as increased iron stores, also result in some demonstrable consequences. On the positive side is the lower incidence of iron deficiency anemia during infancy,⁴ which is particularly relevant in countries where this condition is of high prevalence.⁵ On the negative side is the increased risk for hyperbilirubinemia,⁶ polycythemia, and hyperviscosity.⁷ Because of uncertainty about the beneficial and potential harmful effects of placental transfusion, the clinical timing of cord clamping has been highly variable worldwide. In the western hemisphere, the umbilical cord tends to be clamped soon after birth, presumably to facilitate resuscitation and stabilization of infants and bonding of infants with mothers and because of concerns regarding the adverse effects of placental transfusion. Surveys examining the practice of physicians⁸ and nurse midwives⁹ confirm this. In developing countries the practice is much more variable, and there is a trend toward delayed cord clamping (with the resulting increase in blood and iron received by the infant at birth) to counter the higher incidence of anemia during infancy in these countries. In view of the controversy, and as reported in this issue of JAMA, Hutton and Hassan¹⁰ performed a thorough and careful meta-analysis involving 1912 infants enrolled in 15 controlled trials to examine the benefits and harmful effects of delayed cord clamping in full-term neonates. The authors concluded that there is adequate evidence that delaying cord clamping for a minimum of 2 minutes following birth is of significant benefit to the neonate, extending into infancy and causing little harm to the health of full-term infants. This conclusion was based on the authors' analysis that showed a significantly lower incidence of anemia at age 2 to 3 months and an insignificant difference in the incidence of transient tachypnea, jaundice, and polycythemia in term infants with delayed cord clamping. When considering the strength of evidence in formulating evidence-based medical practice, meta-analysis is second in hierarchy to a properly performed, large, randomized controlled trial.¹¹ The level of credibility of a meta-analysis depends on the quality of data analyzed as well as the care and methods used by the authors who performed the analysis.¹² The quality of the meta-analysis by Hutton and Hassan is sufficiently high to warrant consideration by clinicians regarding timing of cord clamping in term infants. However, a stronger and universal endorsement of delayed clamping will require a well-designed and preferably multicenter (to factor in center effects) randomized controlled trial with a sample size that is powered to address both benefits and potential adverse effects of this intervention. For some clinicians who may consider the evidence provided by meta-analysis strong enough to modify their practice by delaying cord clamping of term infants at birth, several issues deserve consideration. First, in the event of fetal distress and neonatal depression, immediate resuscitation should take priority over placental transfusion; immediate clamping of the cord may be necessary so the infant can be resuscitated. Second, to facilitate placental transfer of blood, the infant should be held approximately 10 inches below the introitus to allow gravity to aid the transfusion.¹³ Third, the review by Hutton and Hassan¹⁰ did not address the effects of uterine contraction resulting from administration of oxytocin; thus, the current practice of administering oxytocin at the end of labor should not be altered. Fourth, delayed cord clamping should not preclude the practice of nutritional anticipatory guidance and iron supplementation to reduce the incidence of iron deficiency anemia in infancy. And fifth, clinicians who are charged with the subsequent care of the newborn should be informed about the delayed cord clamping. This information will increase the awareness of pediatricians, neonatologists, and others who care for the newborn about the need for subsequent observation and management of potential adverse effects such as transient tachypnea, hyperbilirubinemia, and polycythemia. The practice of

timing the clamping of the umbilical cord is variable worldwide. The review by Hutton and Hassan provides evidence that favors delaying clamping for at least 2 minutes after birth of a full-term infant. Randomized controlled trials with sample sizes that are adequately powered for beneficial and potential adverse effects are needed before the practice of delayed clamping can be strongly endorsed.

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Early or late umbilical cord clamping? A systematic review of the literature

Type Article de revue

Auteur B Lainez Villabona

Auteur E Bergel Ayllon

Auteur M L Cafferata Thompson

Auteur J M Belizán Chiesa

Résumé INTRODUCTION: There is wide variability in clinical practice in the moment of clamping the umbilical cord. Opinions in the medical community differ on the harm and/or benefits, both for the mother and for the newborn, of early versus late cord clamping. Currently, the debate among those who defend and/or criticize one or other of these practices continues. The aim of this study was to evaluate the effects of early versus late clamping of the umbilical cord in full-term newborns on maternal and neonatal outcomes. MATERIAL AND METHODS: A literature search of randomized clinical trials was carried out in the Cochrane Library, MEDLINE and Lilacs. It was completed with a hand search of references in relevant articles. All randomized controlled clinical trials of good methodological quality that compared early versus late cord clamping in term newborns were selected. RESULTS: Of seven identified studies, four had the required characteristics for inclusion in this systematic review. Comparison of early versus late clamping in these studies revealed that late clamping could diminish the prevalence of children with low iron reserves at 3 months of age by 50%, but this result comes from a study that lost more than 40% of the patients during follow-up. The results concerning anemia at 3 months of age showed statistical heterogeneity since the two studies that analyzed this outcome had opposite results. For other outcomes such as birth weight, Apgar < 5, and tachypnea the studies were too small for significant differences to be detected. CONCLUSIONS: This review shows that there is no clear evidence for defending any of the modalities of cord clamping in full-term newborns. Further research is

needed to identify the best moment for cord clamping.

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Place du microdosage des lactates au scalp et au cordon devant des anomalies du rythme cardiaque fœtal pendant le travail. Étude prospective sur 162 patientes

Type Article de revue

Auteur A. Paris

Auteur S. Maurice-Tison

Auteur F. Coatleven

Auteur F. Vandenbossche

Auteur D. Dallay

Auteur J. Horovitz

Résumé Objectif Déterminer la place du dosage des lactates au scalp et à l'artère ombilicale par rapport au pH (Gold standard) devant des anomalies du rythme cardiaque fœtal pendant le travail. Méthodes Étude de cohorte prospective du 01/07/2007 au 31/03/2008 regroupant 162 patientes présentant des anomalies du rythme cardiaque fœtal pendant le travail. Résultats La fréquence des échecs de prélèvements au scalp était plus faible pour le dosage des lactates par rapport au pH ($< 1\%$ vs $10,5\%$, $p < 0,001$). Il existait une bonne corrélation entre les lactates et le pH au scalp, entre les lactates et le pH au cordon ; entre les lactates au scalp du dernier prélèvement et au cordon. Lorsqu'il y avait une acidose ou cordon ($\text{pH} \leq 7,15$ ou lactates ≥ 5 mmol/L), le score d'Apgar à cinq minutes de vie était significativement plus bas que lorsqu'il n'y avait pas d'acidose ($4,66 \pm 3,59$ versus $8,35 \pm 2,73$ pour le pH ; $6,6 \pm 3,77$ versus $8,45 \pm 2,58$ pour les lactates). La spécificité des lactates à l'artère ombilicale (≥ 5 mmol/L) était de : $76,4\%$ pour la prédiction d'un score d'Apgar à cinq minutes inférieur à 7, $79,7\%$ pour la prédiction de la nécessité de soins néonataux immédiats, $77,3\%$ pour la prédiction d'une hospitalisation en unité de néonatalogie. Ces chiffres étaient globalement moins bons mais proches de ceux retrouvés pour une valeur seuil de pH à l'artère ombilicale inférieure ou égale à 7,15. Conclusion Le microdosage des lactates se révèle être un bon test diagnostique d'hypoxie fœtale (bonnes spécificité et valeur prédictive négative). Nous pouvons aussi conclure, que ce test peut se substituer au pH comme prédicteur de devenir néonatal. Nous estimons qu'il existe un intérêt évident à combiner les deux analyses. Summary Objective To compare the interest of lactate microanalysis with pH measurement (Gold Standard procedure) in cord blood and fetal scalp blood samples for the assessment of abnormal fetal heart rate (FHR) during labour. Study design A prospective observational study conducted from July 1st 2007 till March 31st 2008 on 162 patients with abnormal FHR during labour. Results Sampling failure for scalp lactate was less than 1% compared to a failure of 10.5% for scalp pH ($P < 0.001$). There was a good correlation between pH and lactates in fetal scalp blood samples and in cord blood samples, between lactate in the last fetal scalp sample and in cord blood. When there was umbilical acidosis ($\text{pH} \leq 7.15$ or lactate ≥ 5 mmol/L), Apgar score at 5 minutes was significantly lower than when there was no acidosis (4.66 ± 3.59 versus 8.35 ± 2.73 for pH ; 6.6 ± 3.77 versus 8.45 ± 2.58 for lactate). The specificity of the lactate in the umbilical cord artery (≥ 5 mmol/laws) was 76.4% for predicting an Apgar score at 5 minutes less than 7 ; 79.7% for predicting the need for immediate neonatal care ; 77.3% for predicting an hospital stay in neonatal unit. These figures were generally worse but close to those found for a threshold value of umbilical artery $\text{pH} \leq 7.15$. Conclusion The values of lactate in cord blood and fetal scalp blood samples

were comparable to pH values (Gold standard procedure). This method is easy to perform and is an attractive alternative to pH for monitoring fetal asphyxia. It is our opinion that the combination of the two methods is of interest. Mots clés Prélèvement au scalp fœtal; Prélèvement à l'artère ombilicale; pH; Lactates; Travail; Anomalies du rythme cardiaque fœtal; Acidose Keywords Fetal scalp sampling; Umbilical artery sampling; PH; Lactate; Labour; Fetal heart rhythm abnormalities; Acidosis

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Acidose, Acidosis, Anomalies du rythme cardiaque fœtal, Fetal heart rhythm abnormalities, Fetal scalp sampling, Labour, Lactate, Lactates, pH, Prélèvement à l'artère ombilicale, Prélèvement au scalp fœtal, Travail, Umbilical artery sampling

Pièces jointes

- ScienceDirect Snapshot

Effect of fear of litigation on obstetric care: a nationwide analysis on obstetric practice

Type Article de revue

Auteur Philip Zwecker

Auteur Laurent Azoulay

Auteur Haim A Abenhaim

Résumé The aim of our study was to investigate the influence of malpractice premiums paid by obstetricians on obstetric care across the United States. We conducted a retrospective cross-sectional population-based study using patient-level data obtained from the Healthcare Cost and Utilization Project-Nationwide Inpatient Sample on every woman who delivered in 2006. Mode of delivery was compared with the average state medical liability insurance premium paid by obstetricians (Medical Liability Monitor and the National Association of Insurance Commissioners) using a generalized estimating equation to calculate crude and adjusted odds ratios. Our cohort included 890,266 women who delivered across 37 states in 2006. Average state malpractice premium of over \$100,000 was

associated with higher incidences of total cesarean deliveries (odds ratio [OR] 1.17, 95% confidence interval [CI]: 1.02, 1.35); lower incidences of vaginal births after cesarean deliveries (OR 0.60, 95% CI: 0.37, 0.98); and lower rates of instrumental deliveries (OR 0.72, 95% CI: 0.63, 0.83) compared with when the average state malpractice premium was less than \$50,000. Fear of litigation appears to have a marked effect on obstetric practice, particularly total cesarean delivery, vaginal birth after cesarean, and instrumental delivery, when malpractice premiums rise above \$100,000 per annum.

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Pièces jointes

- Effect of fear of litigation on obstetric car... [Am J Perinatol. 2011] - PubMed - NCBI

Strength of association between umbilical cord pH and perinatal and long term outcomes: systematic review and meta-analysis

Type Article de revue
Auteur Gemma L Malin
Auteur Rachel K Morris
Auteur Khalid S Khan
Résumé Objective To evaluate the association between umbilical cord pH at birth and long term outcomes. Design Systematic review and meta-analysis. Data sources Medline (1966-August 2008), Embase (1980-August 2008), the Cochrane Library (2008 issue 8), and Medion, without language restrictions; reference lists of selected articles; and contact with authors. Study selection Studies in which cord

pH at birth was compared with any neonatal or long term outcome. Cohort and case-control designs were included. Results 51 articles totalling 481 753 infants met the selection criteria. Studies varied in design, quality, outcome definition, and results. Meta-analysis carried out within predefined groups showed that low arterial cord pH was significantly associated with neonatal mortality (odds ratio 16.9, 95% confidence interval 9.7 to 29.5, I²=0%), hypoxic ischaemic encephalopathy (13.8, 6.6 to 28.9, I²=0%), intraventricular haemorrhage or periventricular leucomalacia (2.9, 2.1 to 4.1, I²=0%), and cerebral palsy (2.3, 1.3 to 4.2, I²=0%). Conclusions Low arterial cord pH showed strong, consistent, and temporal associations with clinically important neonatal outcomes that are biologically plausible. These data can be used to inform clinical management and justify the use of arterial cord pH as an important outcome measure alongside neonatal morbidity and mortality in obstetric trials.

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Benefits of introducing universal umbilical cord blood gas and lactate analysis into an obstetric unit

Type Article de revue

Auteur Christopher R.H. White

Auteur Dorota A. Doherty

Auteur Jennifer J. Henderson

Auteur Rolland Kohan

Auteur John P. Newnham

Auteur Craig E. Pennell

Résumé Background: Current evidence suggests that umbilical arterial pH analysis provides the most sensitive reflection of birth asphyxia. However, there's debate whether umbilical cord blood gas analysis (UC-BGA) should be conducted on some or all deliveries. Aim: The aim of this study was to evaluate the impact of introducing universal UC-BGA at delivery on perinatal outcome. Methods: An observational study of all deliveries ≥ 20 weeks' gestation at a tertiary obstetric unit between January 2003 and December 2006. Paired UC-BGA was performed on 97% of deliveries (n = 19,646). Univariate and adjusted analysis assessed inter-year UC-BGA differences and the likelihood of metabolic acidosis and nursery admission. Results: There was a progressive improvement in umbilical artery pH, pO₂, pCO₂, base excess and lactate values in univariate and adjusted

analyses ($P < 0.001$). There was a significant reduction in the newborns with an arterial pH < 7.10 (OR = 0.71; 95% CI 0.53–0.95) and lactate > 6.1 mmol/L (OR = 0.37; 95% CI 0.30–0.46). Utilising population specific 5th and 95th percentiles, there was a reduction in newborns with arterial pH less than 5th percentile (pH 7.12; OR = 0.75; 95% CI 0.59–0.96) and lactate levels greater than 95th percentile (6.7 mmol/L; OR = 0.37; 95% CI 0.29–0.49). There was a reduction in term (OR = 0.65; 95% CI 0.54–0.78), and overall (OR = 0.75; 95% CI 0.64–0.87) nursery admissions. These improved perinatal outcomes were independent of intervention rates. Conclusions: These data suggest that introduction of universal UC-BGA may result in improved perinatal outcomes, which were observed to be independent of obstetric intervention. We suggest that these improvements might be attributed to provision of biochemical data relating to fetal acid-base status at delivery influencing intrapartum care in subsequent cases.

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Acidosis, Asphyxia Neonatorum, blood gas analysis, continuing professional education, Umbilical Cord

Pièces jointes

- Snapshot

Delayed umbilical cord clamping at birth has effects on arterial and venous blood gases and lactate concentrations

Type Article de revue
Auteur N Wiberg
Auteur K Källén
Auteur P Olofsson
Résumé OBJECTIVE To estimate the influence of delayed umbilical cord clamping at birth on arterial and venous umbilical cord blood gases, bicarbonate (HCO_3^-), base excess (BE) and lactate in vigorous newborns. SETTING University

hospital. **DESIGN** Prospective observational. **SAMPLE** Vaginally delivered term newborns. **MATERIAL AND METHODS** Umbilical cord arterial and venous blood was sampled repeatedly every 45 seconds (T(0)= time zero; T(45)= 45 seconds, T(90)= 90 seconds) until the cord pulsations spontaneously ceased in 66 vigorous singletons with cephalic vaginal delivery at 36-42 weeks. Longitudinal comparisons were performed with the Wilcoxon signed-ranks matched pairs test. Mixed effect models were used to describe the shape of the regression curves. **MAIN OUTCOME MEASURES** Longitudinal changes of umbilical cord blood gases and lactate. **RESULTS** In arterial cord blood, there were significant decreases of pH (7.24-7.21), HCO₃⁻ (18.9-18.1 mmol/l) and BE (-4.85 to -6.14 mmol/l), and significant increases of PaCO₂ (7.64-8.07 kPa), PO₂ (2.30-2.74 kPa) and lactate (5.3-5.9 mmol/l) from T(0) to T(90), with the most pronounced changes at T(0)-T(45). Similar changes occurred in venous blood pH (7.32-7.31), HCO₃⁻ (19.54-19.33 mmol/l), BE (-4.93 to -5.19 mmol/l), PaCO₂ (5.69-5.81 kPa) and lactate (5.0-5.3 mmol/l), although the changes were smaller and most pronounced at T(45)-T(90). No significant changes were observed in venous PO₂. **CONCLUSION** Persistent cord pulsations and delayed cord clamping at birth result in significantly different measured values of cord blood acid-base parameters.

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Intérêt de la mesure des lactates au scalp foetal au cours du travail. Étude comparative avec le pH au scalp

Type Article de revue

Auteur R. Ramanah

Auteur A. Martin

Auteur D. Riethmuller

Auteur R. Maillet

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Résumé **Résumé Objectif.** – Démontrer la valeur diagnostique et la faisabilité du dosage des lactates au scalp pendant le travail de l'accouchement dans l'appréciation de l'acidose fœtale en cas d'anomalie du rythme cardiaque fœtal. **Patients et méthode.** – Une étude prospective observationnelle a été conduite sur 129 prélèvements de sang capillaire au scalp fœtal. Le dosage des lactates au scalp a été comparé au pH au scalp (technique de référence), à la gazométrie néonatale au cordon (pH et lactates) et au score d'Apgar. Les valeurs seuils pathologiques retenues ont été pour les lactates au scalp supérieure à 5 mmol/l, pour le pH au scalp inférieure à 7,20, pour le pH artériel au cordon inférieure à 7,10, pour les lactates à l'artère ombilicale supérieure à 6,35 mmol/l, et pour le score d'Apgar inférieur à 7 à une et cinq minutes. Les mesures ont été obtenues par microdosage avec l'analyseur Rapid Lab™ 860 de Bayer, disponible en salle de naissance. **Résultats.** – Les lactates au scalp étaient corrélés significativement au pH au scalp ($r = -0,54$, $p = 0,001$), au pH de l'artère ombilicale ($r = -0,46$, $p = 0,01$), aux lactates de l'artère ombilicale ($r = 0,49$, $p = 0,01$). La valeur prédictive négative et la spécificité des lactates au scalp étaient bonnes (92 %) et comparables à celles du pH au scalp pour le diagnostic d'acidose à la naissance objectivée par un pH à l'artère ombilicale inférieur à 7,10 et/ou des lactates à l'artère ombilicale supérieures à 6,35 mmol/l. La faisabilité du dosage des lactates au scalp était meilleure que le mesure de pH (moins de 1 % d'échec contre 18 %). **Discussion et conclusion.** – La mesure des lactates au scalp fœtal par microdosage a une valeur diagnostique comparable à celle du pH au scalp ; sa valeur prédictive négative est aussi bonne dans l'appréciation de l'acidose fœtale. En outre cette technique est plus facilement réalisable que celle du pH. Le dosage des lactates au scalp apparaît comme un complément diagnostique important en présence d'anomalies du RCF. Bien que des études prospectives soient encore nécessaires, l'existence de matériel portable nécessitant un volume sanguin encore plus faible rend possible la mesure des lactates fœtaux dans toutes les maternités. **Objective.** – To evaluate the validity and the feasibility of fetal scalp lactate sampling during labour in the assessment of non reassuring fetal status. **Patients and method.** – A prospective observational study was conducted on 129 fetal scalp blood samplings. Scalp lactate measurements were compared to scalp pH (gold standard procedure), neonatal cord blood gas (pH and lactates) and Apgar score. Pathological values taken were for scalp lactates > 5 mmol/l, scalp pH < 7.20 , cord arterial pH < 7.10 , cord arterial lactates > 6.35 mmol/l, and Apgar score < 7 at one and five minutes. All measurements were performed using the Rapid Lab™ 860 device from Bayer. **Results.** – Scalp lactate correlated significantly with scalp pH ($R = -0.54$, $P = 0.001$), with umbilical artery pH ($R = -0.46$, $P = 0.01$), with umbilical artery lactate ($P = 0.49$, $P = 0.01$), but with neither Apgar score at one minute ($R = -0.21$, ns) nor at 5 minutes ($R = -0.11$, ns). Scalp lactate at a cut-off value of 5 mmol/l had the same predictive values than scalp pH at 7.20 to predict neonatal acidosis. Sampling failure with scalp lactate was inferior to 1 vs 18% for scalp pH. **Discussion and conclusion.** – The measurement of lactate in fetal blood scalp seems correlated to the fetal scalp pH. It may be an attractive alternative to pH analysis and a useful tool for monitoring fetal asphyxia, especially with the advent of handheld devices requiring small sample volumes.

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- ScienceDirect Snapshot

- Bashara, R. « Lotus birth: a mother's perspective ». *Midwifery today with international midwife*, n° 58 (2001): 17.
- Buckley, Sarah J. « Lotus birth: a ritual for our times ». *Midwifery today with international midwife*, n° 67 (2003): 36-38.
- Crowther, Susan. « Lotus birth: leaving the cord alone ». *The practising midwife* 9, n° 6 (juin 2006): 12-14.
- Lim, R. « Lotus birth: asking the next question ». *Midwifery today with international midwife*, n° 58 (2001): 14-16.
- Murphy, Mary. « Lotus after cesarean ». *Midwifery today with international midwife*, n° 76 (2005): 6.
- Westfall, Rachel. « An ethnographic account of lotus birth ». *Midwifery today with international midwife*, n° 66 (2003): 34-36.