ID: 48
TITLE: CORRELATION ANALYSIS BETWEEN MOLECULAR MARKERS AND SCORAD SCALE
AUTHORS: Nurangiz Hajiyeva 1; Afag Akhundova 2; Nargiz Mammadova 3; Pusta Orujova 4
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CONTENT:

Damage of the barrier function of the intestinal mucous membrane has important role in pathogenesis of atopic dermatitis. Mucous membrane markers MUC-2 (Mucin 2) and ITF (Intestinal Trefoil Factor) implement protective function of the intestinal mucous membrane.

The aim of the current study is prediction development of atopic dermatitis (AtD) from the first days of postnatal period by assessing the status of mucosal intestinal secretion based on correlation analysis.

Process of becoming allergic phenotype starts even before birth due to certain physiology changes happened with pregnant woman. Besides, in resent years there is an observation of a tendency of growth a number of pregnant woman, who possesses high risk in development of perinatal complication, and brings to disorder of neurohumoral adaptive mechanisms, non-adequate immune response of fetus and newborn. It is defined that intestinal mucous membrane is the most delicate for adverse impacts of antenatal period. There is observed boosting penetrability of mucous membrane of children with AtD that allows allergen permeate into organism. Our research defines induction impact of allergic processes on expression MUC-2 and ITF of the intestinal mucous membrane. Though available data about role of mucous membrane and other factors impact on early development of AtD are rare and quite controversial.

We divided 56 term newborns into 3 subgroups based on severity of AtD: 13 children with mild severity, 25 children with moderate severity, 18 children with heavy severity. Definition of the AtD severity of the children at the first year of life was conducted based on semi-quantity scale of SCORAD.

While examining correlation analysis between level of structural and functional components of mucosal barrier and degree of the clinical appearance of AtD, we found the true positive dependency between concentration of Muc-2 and estimation by scale SCORAD (ρ=0,414; p < 0,001). Similar dependency between ITF level and SCORAD scale is relatively moderate (ρ=0,265; p = 0,039). Hypersecretion of goblet cells exerted in high concentration of Muc-2 since first days of life allows us imply infringement of intestinal mucous barrier under impact of perinatal risk factors follow by formation AtD on the next stages of ontogenesis. Obvious change in the level of Muc-2 in compare with ITF indicators in AtD evidently prove higher sensibility of Muc-2 as intestinal barrier against harm conditions in antenatal age.

Because appearance of high concentration of Muc-2 indicates hyper secretion of goblet cells, we can conclude that perinatal risk factors defeat mucosal barrier of intestine and formulate AtD at the following stages of ontogenesis. Difference between significant changes in the levels of MUC-2 and ITF during AtD reveal higher sensibility of this component of the intestinal barrier for damaging influences in antenatal period.

IMAGES:
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COI: None declared
ID: 106

TITLE: NEO-SENSE - A NOVEL SENSOR TO DETECT NEONATAL HEART RATE: QUALITATIVE STUDY ON HEALTHCARE PROFESSIONALS

AUTHORS: Oana Anton 1; Ramon Fernandez 2; Elizabeth Rendon-Morales 3; Rodrigo Aviles-Espinosa 4, Christina J Jones 5; Heike Rabe 6

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3. Robotics and Mechatronics Systems Research Center, School of Engineering and Informatics, University of Sussex, Brighton, UK
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CONTENT:

Heart rate (HR) is the most important indicator when evaluating the clinical status of a newborn. Well established methods are either rapid but inaccurate, or have unacceptable delay to signal acquisition. A novel heart rate monitoring device based on Electric Potential Sensing (EPS) technology is being developed in collaboration with the Robotics and Mechatronics Systems Research Center, University of Sussex. The aim of our study was to inform the prototype design by exploring healthcare professionals’ views and perceptions on current methods used to detect HR and gain valuable insight into the desirable features of the novel sensor.

This was a qualitative study where we conducted semi-structured interviews to elicit healthcare professionals’ views and perceptions on current and prospective methods to detect and monitor HR on babies. We focused on two key areas: views on established heart rate monitoring devices and the essential features of the novel Neo-Sense sensor. The inclusion criteria were healthcare professionals involved in the immediate care of babies: paediatricians, midwives and neonatal nurses. Each interview was audio-recorded and transcribed verbatim. Thematic content analysis using the Burnard’s framework was used to interpret the data. To reduce researcher bias, transcripts were read independently by another researcher and discussed to achieve consensus.

We recruited 21 participants, 7 from each professional group. The initial heart rate assessment preferred was by stethoscope. Difficulties with auscultation reported were due to environment, equipment, interfering with resuscitation and staff anxiety. Other limitations mentioned were: delay in display for pulse oximetry and difficulties with the attachment of ECG leads.

Regarding our novel sensor, all three professional groups agreed that it looked non-invasive, “less scary for parents”, comfortable and had fewer wires. The overall consensus was that it should be incorporated in a pad, mattress or strap, and be placed under the baby. The ideal features included: accuracy, ease of use, quickness of reading, wireless connection, smooth surface, easy to maintain and to attach. Suggestions for prototype improvement included a skin friendly material, targeted training and the use of diagrams.

For a novel sensor to be accepted it has to overcome the practical barriers for use and prove its accuracy, reliability and speed. The development of a technological solution requires a multidisciplinary team effort and has immense implications for clinical practice.

COI: None declared
ID: 107

TITLE: HEART RATE MONITORING IN NEWBORN BABIES: A SYSTEMATIC REVIEW

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CONTENT:

The majority of newborn infants make the transition from the intrauterine to extrauterine environment successfully; however, approximately 10% of newborn infants require assistance during this transition. Heart rate (HR) is the most important clinical indicator to evaluate the clinical status of a newborn.

Aims

Our study aimed to determine and review all established and novel methods developed to date used to detect heart rate on babies giving special consideration to non-invasive techniques and their potential to minimise noxious stimuli and infection.

We performed a systematic literature search on the following data bases: MEDLINE, Embase, Cochrane Central Register of Controlled Trials (CENTRAL), CINAHL. The inclusion criteria were studies on methods to detect heart rate in both term and preterm infants in comparison to one of the current gold standards: pulse oximetry (PO) or ECG published in the last 15 years. Two independent reviewers screened titles and abstracts for eligibility. Data extracted in an Excel table was analyzed to produce a narrative review structured around type of monitoring, obstacles in the use of the technology, as well as methods to overcome these limitations.

The search identified 649 studies after duplicates were removed. Titles and abstracts were screened for eligibility and full article analysis was performed on 26 studies of which 25 met the inclusion criteria.

The methods to detect heart rate can be categorised into well-established methods and novel methods. We have also divided them into continuous contact, intermittent contact and non-contact methods.

Well established methods such as auscultation and palpation, although rapid and easily available, have been shown to be inaccurate. ECG and PO were both more precise but the delay in obtaining a reliable heart rate signal from birth often exceeded one to two minutes. Novel sensors offered the advantages of minimally obtrusive technologies but have limitations mainly due to movement artefacts, inefficient sensor coupling with the skin, intermittent measurements and poor-quality recordings.

Limitations of existing methods have potential impact on short and long term morbidity and mortality outcomes. The development of a technological solution to determine HR accurately and quickly in babies at birth has immense implication for further research and can guide interventions, such as placental transfusion and resuscitation.

COI: None declared
ID: 139
TITLE: OUTCOME AND MORBIDITY IN MULTIPLE PREGNANCY – A COMPARISON BETWEEN SPONTANEOUS AND IN VITRO FERTILIZATION PREGNANCIES
AUTHORS: Luminita Paduraru 1,2
Ionela Musteata 2
Maria Stamatin 2
Gabriela Ildiko Zonda 1,2
Mihaela Moscalu 3
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3 Division of Informatics and Medical Statistics, Department of Preventive Medicine and Interdisciplinarity, “Grigore T. Popa” University of Medicine and Pharmacy Iași

CONTENT:
Over the last decades, population studies in developing countries noted an increase in multiple pregnancies (MP) due to the increasing availability and affordability of in vitro fertilization (IVF). In the mean time, MP are responsible for a disproportionate amount of morbidity and mortality, largely attributable to complications of prematurity. Women with MP are six times more likely to deliver preterm and 13 times more likely to deliver before 32 weeks than those with a singleton pregnancy. The aim of this study was to determine the recent prevalence of multiple pregnancies in a level III center, to analyze the adverse neonatal outcome and the impact of IVF on morbidity.

We performed a retrospective study involving all multiple pregnancies delivered at Cuza-Voda Obstetrics and Gynecology Hospital in Iasi, which is a level III perinatal center, between January 1st 2015 - December 31st 2018. The study included 791 newborns from 387 multiple pregnancies out of 26193 deliveries. Due to in utero death, 18 cases were excluded, resulting in a study group of 773 cases.

The rate of MP was 1.48%, out of which 95.87% were twins, 3.88% triplets and 0.26% quadruplets. 16.28% resulted from IVF. There was no significant association between MP and IVF, but IVF was significantly associated with c-section delivery (p=0.002). The prematurity rate was 79.8% (mean gestational age=34.3 weeks). 52.65% presented no morbidity, 43.33% had single morbidity and 4.01% developed complications. Twin-twin transfusion syndrome was present in 1.55% of cases.

IVF was not associated with either single or complex morbidity. Of 366 cases with significant morbidity, 18 died (4.91%). There were no statistically significant differences regarding the need for bag and mask ventilation, CPAP use in the delivery room and NICU or surfactant administration, between spontaneous and IVF MP, but IVF newborns needed significantly more intubation and mechanical ventilation in the NICU.

Multiple pregnancies conceived in vitro are more likely to be delivered by c-section, may need more intubation and mechanical ventilation after birth, but are not more predisposed to develop severe morbidity.

COI: None declared
ID: 256

**TITLE:** THE EFFECT OF MATERNAL RISK FACTORS AND PLASENTAL HISTOPATHOLOGY ON NEONATAL MORBIDITY IN LATE PRETERM INFANTS

**AUTHORS:** Arife Dutucu 1; Deniz Anuk Ince 1; Şebnem Kupana Ayva 2; Sertac Esin 3; Mustafa Agah Tekindal 4; Özden Turan 1; Ali Ulaş Tugcu 1; Ayse Ecevit 1

**AFFILIATIONS:** 1 Paediatric Dept., University Hospital of Baskent, Ankara, Turkey
2 Pathology Dept., University Hospital of Baskent, Ankara, Turkey
3 Obstetrics and Gynecology Dept., University Hospital of Baskent, Ankara, Turkey
4 Biostatistics, University Hospital of Selcuk, Konya, Turkey

**CONTENT:**

Preterm births are the most important risk factor for neonatal morbidity and mortality. About 65-70% of preterm babies are late preterm who were born between 34 0/7 - 36 6/7 gestational weeks. Late preterms are often considered to be mature functionally and developmentally and therefore they treated as full-term babies, which can result in overlooked problems. Placental evidence of antenatal conditions also likely correlates with morbidity, but there are few studies in the literature. The aim of this study was to investigate the effect of placental histopathology and maternal risk factors on neonatal morbidity and mortality, and to identify problems in the early period.

This study was carried out between January 2018 and July 2018 at our hospital including a total of 62 late preterm infants. We evaluated neonatal morbidities in these infants according to placental pathology and maternal risk factors. Multiple congenital anomalies, chromosomal abnormalities and late preterm newborns born at the external center were excluded from the study. Placenta pathologies according to diagnostic categories (1-Amnion fluid infection sequence, 2-Maternal uterine malperfusion, 3-Full fold perivillous fibrin accumulation, maternal base infarct, 4-Chronic inflammation, 5-Fetal obliterative vasculopathy, 6-Plasentomegaly, 7-Hematoma, 8 normal, 9-other) were evaluated and lower risk factors were investigated.

The most frequent morbidities were feeding intolerance, hyperbilirubinemia and hypoglycemia. The most frequent pathological causes leading to morbidity were chronic inflammation, maternal uterine malperfusion and plasentomegaly. Maternal malperfusion in the placenta with hyperbilirubinemia and intracranial hemorrhage; chronic inflammation with polycythemia, feeding intolerance and recurrent hospitalization; fetal obliterative vasculopathy with polycythemia; plasentomegaly with early neonatal sepsis and feeding intolerance were found to be statistically significant. Hyperbilirubinemia and feeding intolerance in preeclamptic mothers’ infants; feeding intolerance in infants whose mothers with premature rupture of membrane and early neonatal sepsis and re-hospitalization in infants with maternal infections were found to be statistically significant.

In our study, maternal and placental risk factors were found to be related to morbidities in late preterm infants. Placental examination and evaluation may reveal prediction of morbidities in preterm infants individually. This may help to prevent morbidities and will provide early treatment of the diseases.

**IMAGES:**
https://www.eiseverywhere.com/eselectv3/v3/events/351149/submission/files/download?fileID=9ab6363b1dc08a1b589677315c4579c5-MjAxOS0wNSM1Y2UyNjY2YzBIMWQ4

**COI:** None declared
ID: 265  
**TITLE:** DETERMINATION OF THE FUNCTIONAL STATUS OF NEPHRONS USING THE BIOMARKER CYSTATIN C IN SGA NEWBORNS  
**AUTHORS:** Afag Akhundova 1; Rauf Baylarov 2; Nushaba Panakhova 1; Sefikhan Hesenov 3; Puste Orujova 1; Nurengiz Hajieva 1  
**AFFILIATIONS:** 1 2nd Children Disease Department, Azerbaijan Medical University; 2 Paediatric Department, Azerbaijan State Medical University; 3 1st Children Disease department, Azerbaijan Medical University  

**CONTENT:**

As known, SGA newborns, remain in a state of chronic intrauterine hypoxia. They are born with a fewer amount of nephrons, leading to the hypertrophy and the hyperfiltration of residual nephrons, which makes the kidneys of SGA infants more vulnerable to a variety of pathological factors, such as hypoxia and ischemia.

The aim of our research was to determine the levels of Cystatin C in the blood plasma for the study of the renal function in SGA newborns. Cystatin C is a small protein that found in a variety of body fluids, including the blood. It is filtered out of the blood by the glomeruli of the kidneys. The levels of Cystatin C in the blood are stable when the kidneys are functioning normally, but they begin to rise as the function of kidneys declines. The increase in concentrations of Cystatin C occurs as a result of the fall of GFR. Usually, this increase becomes detectable before there is a significant decrease in the function of the kidneys.

81 infants were divided into 3 groups:
Group 1 included -15 term SGA infants, and 20 Asphyxiated term infants (GA = 37-42 weeks). Group 2 consisted of 13 AGA and 8 SGA preterm infants (GA = 33-36 weeks). Group 3 consisted of 15 AGA and 10 SGA preterm infants (GA = 29-32 weeks). Blood samples were taken at 1-3 and 7-10 days of their life. Serum levels of Cystatin C were quantified by Elisa method. The results were compared using the Mann-Whitney test.

While assessing the level of Cystatin C in accordance to the gestational age, we found a statistically significant difference in the level of this marker between full-term and preterm infants only on 7-10 days of life (p1-2 = 0.011, between the 1st and 2nd, p1-3 = 0.017 - between the 1st and 3rd group). [Table 1]
Moreover, depending on the compliance of body weight with the gestational age, significant differences were only observed between the subgroups of the 3rd group. In SGA infants the levels of this marker, which reflects the functional status of the glomeruli, is significantly higher than in AGA infants. (Table 1)

Hypoxia and intrauterine growth retardation do not leave the kidneys of premature infants intact, as well as term infants, and is characterized by the simultaneous involvement in the pathological process of glomerular and tubular epithelium. The higher severity of intrauterine growth retardation, leads to a higher violation of renal function in these infants.

**IMAGES:**
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Table 1. Comparison of the serum Cystatin C levels in SGA and AGA newborn subgroups.

**COI:** None declared
ID: 313

**TITLE:** THE USE OF PSYCHOTROPIC MEDICATION IN PREGNANCY: SUPPORTIVE MANAGEMENT OF THE MATERNAL-INFANT DYAD

**AUTHORS:** Katie Mayers; Kathryn Johnson

**AFFILIATIONS:** Leeds Neonatal Service, Leeds Children's Hospital, Leeds General Infirmary

**CONTENT:**

Many pregnant women experience mental health problems, particularly anxiety and depression, and it is not uncommon for women to require psychotropic medication in pregnancy. It is well recognised that babies born to women taking such medication can develop withdrawal symptoms termed Neonatal Behavioural Syndrome (NBS) after birth. Infants with NBS are often admitted for observation, disrupting the maternal-infant bond, as well as creating a significant resource burden for neonatal units.

Locally we have created new guidance which aims to be permissive, standardising and normalising care within safe parameters for babies born to women taking psychotropic medication in pregnancy.

Our work aimed to understand management pathway of babies at risk of NBS in our busy service (10,000 deliveries per year).

We reviewed the local perinatal mental health (PMH) database over an 18 month period (January 2017-September 2018). All women who were on psychotropic medication during pregnancy, whose babies were admitted to the neonatal service, were identified.

The database reviewed includes only women seen by the PMH Team, and not those prescribed psychotropic medications (particularly the Selective Serotonin Reuptake Inhibitors) in primary care.

Our work therefore is likely to underestimate both the true number of infants at risk of NBS and the potential positive effect on mothers and infants on any change in practice.

201 women registered to the PMH team delivered in the period observed. 81 received psychotropic medication and 19 had babies admitted to the neonatal service. 1 baby was born at 24 weeks so excluded.

10 babies were admitted for clinical reasons other than NBS. 2 babies were poly-substance exposed. 8 babies were admitted for observation for NBS due to psychotropic medication alone with a median stay of 3 days. 1 baby received treatment for NBS.

Following the introduction of the new guidance in 2018 no baby has been admitted to the neonatal service purely for observation of NBS following the use of psychotropic medication in pregnancy.

Conversely no baby was admitted from normal post natal care as a result of NBS symptoms.

The use of psychotropic medication in pregnancy is not uncommon. Admission & the resulting separation of mother from baby to observe/treat for NBS has the potential to cause significant harm in this vulnerable group.

Our work shows it is possible to safely offer normal postnatal care for infants at risk of NBS, both promoting maternal-infant bonding and freeing capacity within the neonatal service.

**COI:** None declared
ID: 344

TITLE: THE SPONTANEOUSLY VAGINALLY DELIVERED EXCLUSIVELY BREASTFED INFANT DISCHARGED WITHOUT ADDITIONAL INVESTIGATIONS – AN ENDANGERED SPECIES?

AUTHORS: Robert McGrath 1; Jan Miletin 1, 2, 3, 4

AFFILIATIONS: 1 Department of Neonatology, Coombe Women and Infants University Hospital, Dublin, Ireland
2 Department of Neonatology, Institute for the Care of Mother and Child, Prague, Czech Republic
3 UCD School of Medicine and Medical Science, Dublin, Ireland
4 Third School of Medicine, Charles University, Prague, Czech Republic

CONTENT:

Medical overuse is defined as the provision of healthcare for which net benefits do not exceed net harms. There is an ever growing body of literature exploring medical overuse with the number of publications about overuse having nearly tripled from 2014 to 2016, much of this inspired by the burgeoning debate around what constitutes “too much medicine”. This trend is not specific to adult medicine and there is a small, but growing body of research focused on paediatric overuse.

Studies focused on overuse and overmedicalisation within neonatology are fewer still.

We performed a retrospective observational cohort study in a large tertiary level maternity hospital (Coombe Women & Infants University Hospital, Ireland).

Manual chart review of all babies born in August and December 2017 was undertaken. Infants born <37 weeks gestation, infants with a congenital or chromosomal abnormality, infants admitted to the neonatal unit for management beyond observation and those whose chart was unavailable for review were excluded from analysis.

Our primary outcome was to establish number of infants born by spontaneous vaginal delivery (SVD), receiving routine care and exclusively breastfed until discharge. Our secondary outcomes included the number of these in whom non-invasive and invasive investigations were performed beyond accepted routine neonatal care.

Of 1376 infants born in the study period, 701 in August 2017 and 675 in December 2017, 1137 (83%) were eligible for inclusion with 239/1376 (17%) excluded based on the aforementioned exclusion criteria.

Of included infants 576 were male. Mean gestation at birth was 39.7±1.3 weeks and mean birth weight was 3494.5±464.5g. 386/1137 (14%) were born via SVD, 231/1137 (20%) via vaginal delivery post induction of labour, 182/1137 (16%) via instrument assisted vaginal delivery and 338/1137 (30%) via lower segment caesarean section, elective or emergency. Of included infants 164/1137 (12%) were born via SVD and breastfed exclusively until discharge. Of these 137/164 (83%) underwent no further invasive investigations beyond accepted routine care, and 77/164 (47%) underwent no further investigations either non-invasive or invasive beyond accepted routine neonatal care until their discharge.

In a large tertiary maternity hospital , 164/1137 (14%) of term infants were born via SVD and exclusively breastfed until discharge. 77/1137 (7%) of breastfed term infants born via SVD underwent no further investigations beyond routine neonatal care.

We ask when did a diagnosis of “normality” become the exception and not the rule? We propose that further research in the field of medical overuse within maternal and neonatal care is justified.

COI: None declared
ID: 354
TITLE: COMPARATIVE ANALYSIS OF THE BENEFITS OF ADMINISTRATION OF LOW DOSE ASPIRIN AND LOW MOLECULAR WEIGHT HEPARIN IN PREGNANCY
AUTHORS: Natalia Turcan 1, Bohiltea Roxana 2, Cirstoiu Monica 3
AFFILIATIONS: Obstetrics and Gynecology Department, University Emergency Hospital Bucharest
“Carol Davila” University of Medicine and Pharmacy

CONTENT:

Nowadays, the prevention strategies are priority points of research in every medical field. The efficacy of low dose aspirin administrated in high or moderate risk pregnant women in preventing preeclampsia, fetal growth restriction and preterm birth has been extensively studied and proven. As regards the benefit of low-molecular weight heparin administration in preventing the above-mentioned conditions, there are still insufficient data in this area. Low molecular weight heparin is the effective and safe in pregnancy, being the anticoagulant of choice in prevention or treatment of deep vein thrombosis, complications of inherited thrombophilia, antiphospholipid syndrome or supraventricular arrhythmias in pregnancy.

Our purpose was to analyze, comparatively, the impact on placental function, respectively fetal growth of low dose aspirin alone, low dose aspirin combined with low molecular weight heparin and low molecular weight heparin alone. Our group of study include 255 cases of first, second or third trimester pregnant women in treatment with low dose aspirin (Group I), 89 cases in treatment with low molecular weight heparin (Group II), and 57 cases with combined treatment (Group III).

All three groups included high or moderate risk cases, respectively obesity, personal or family history of thrombotic events, recurrent spontaneous abortions or increased values of Doppler velocimetry of the uterine arteries. The incidence of oligohydramnios in the first group was 2.7%, in the second group was 2.2% and 0 % in the third group. The incidence of intrauterine growth restriction was 2.7% in the first group, 3.37 % in the second group and 0% in the third group. The rate of miscarriage was about 3.1%, in the second group was 4.3%, with one cases of miscarriage at 17 weeks of gestation and in the third group was 1.8%. The result obtained for the three groups are similar, but with significant improvement compared to general population.

The reported incidence of oligohydramnios is around 10%; in our study group it did not exceed 3%. Worldwide the incidence of fetal growth restriction varies between 10 and 20% from our results we have obtained a much lower incidence. Resuming, we can affirm that administration of low dose aspirin, of low molecular weight heparin or their combination is beneficial and improves the pregnancy outcome.

COI: None declared
ID: 898

TITLE: UMBILICAL CATHETERS – CLINICAL PRACTICE AND COMPLICATION IN TERTIARY NICU

AUTHORS: Sylvia Gkantseva-Patsoura¹, Dionisia.Lampropoulou¹, Magdalini Papadopoulou¹, Petroula Georgiadou¹, Kalliopi Kappou¹, Rita Theofanopoulou², Martha Theodoraki¹

AFFILIATIONS: ¹.NICU, General Hospital of Nikaia”Agios Panteleimon”-Piraeus, GREECE
                           2.1-st TOMY, Sparti, GREECE

CONTENT:

BACKGROUND: Insertion of umbilical arterial and venous catheters (UAC / UVC) is a common practice in NICU. The placement is done by the use of standard aseptic technique for the purposes of arterial blood sampling, central blood pressure or blood gas monitoring, the intravenous access for the administration of fluid, drugs, or hypertonic glucose, exchange transfusion, or when peripheral access cannot be obtained. Insertion, management and removal of umbilical catheters (UCs) are standard procedures performed routinely on the NICU. However, there are complications related to catheter malpositioning, vascular or equipment-related accidents and other such as infections, NEC, hemorrhage etc.

METHODS: Retrospective descriptive study during a four years period in our tertiary NICU. Medical files of the neonates with umbilical catheters were reviewed for gestational age, birth weight, gender, need for mechanical ventilation, duration of catheter dwell time, clinical neonatal variables, complications and incidents. UCs were placed in high position UAC (T6-10), UVC at the level of the diaphragm. Tip position was confirmed by x-ray. In case of failure to place or manage UCs, a peripheral inserted central catheter (PICC) or a central Broviac line were inserted. Our aim was to observe cranial and abdominal ultrasounds, to record the incidents, to define possible causes and compare our results with those of other centers. Routine ultrasound was performed by experienced radiologist.

RESULTS: Our study involved 148 neonates hospitalized in the NICU. 78(52%) were males and 71(48%) were females. The vast majority (73%) were preterm neonates. 17(11%) neonates had only UCV, 21(14%) – had only UAC and 110(75%) – had both UVC and UAC. The most common complication was sepsis with 33 incidents (22%), from which 20 incidents were dominated by Gram(-) bacteria. Laboratory results revealed cholestasis in 13(8,7%) neonates. Predominant ultrasound findings were pericholecystic edema and gallbladder sludge. Other findings include portal vein thrombosis (3) and renal artery thrombosis which eventually lead to kidney atrophy(2). Thrombophilia examination revealed MTHFR and V Leiden heterozygosity (2). Other complications were necrotic enterocolitis (2), hepatic hematoma (1) and supra ventricular tachycardia (1). Finally, only one incident was recorded with blood loss from UAC.

CONCLUSIONS: In general, our study demonstrated lack of extremely severe complications due to umbilical vascular catheterization. This was attributed to the presence of an experienced neonatologist throughout the procedure, along with radiologic and ultrasound confirmation of the exact position of the catheter. However, extreme caution should always be taken during umbilical vascular catheterization as sever or even lethal complications can occur.

COI: None declared
ID: 911
TITTLE: SHORT TERM NEONATAL OUTCOME ACCORDING TO DELIVERY MODE IN LATE PRETERM INFANTS
AUTHORS: Maria Livia Ognean1,2, Corina Zgârcea1, Oana Boantă2, Raluca Iosifescu1, Cristina Vlad1, Aurelia Ștefan1, Radu Chicea1,3
AFFILIATIONS: 1Faculty of Medicine, University Lucian Blaga Sibiu
2Neonatology Dept., Clinical County Emergency Hospital Sibiu
3Obstetrics-Gynecology Dept., Clinical County Emergency Hospital Sibiu

CONTENT:

Introduction
An increased incidence of late preterm birth was noted in the latest years, part of them due to elective delivery due to maternal conditions and changes in maternal demographics.
Aim: The study aimed to evaluate the influence of the delivery mode on the short term outcome in late preterm infants (LPIs).

Material and methods:
All LPIs delivered in our regional level III unit between 2013 and 2018 were included in the study. Anthropometric data, Apgar score, birth status, and incidence of postnatal complications were comparatively analyzed between LPIs delivered vaginally and those delivered by C-section. Statistical analysis was performed using SPSS 19.0 for Windows for p significant if <0.050 (95% CI); odds ratio (OR) were calculated where appropriate.

Results:
The study group comprised 970 LPIs, 585 born vaginally (60.31%) and 385 delivered by C-section. No differences were found between groups as regards GA (p=0.283), BW (p=0.553), and Apgar scores at 1, 5 and 15 minutes (p>0.50) although LPIs needed more often resuscitation (14.3% vs 9.1%, p=0.012). Also, LPI infants delivered by C-section were more often diagnosed with anemia at birth (28.6% vs 14.4%, p<0.001, Or 1.58 95% CI 1.34-1.88), and had significantly lower hemoglobin levels (p<0.001). No significant differences were found as regards the incidence of respiratory distress syndrome, persistent fetal circulation, severe jaundice, hypoglycemia, hypocalcemia, persistent ductus arteriosus, transient renal insufficiency but despite these results, LPIs born operatively were significantly more often admitted in the NICU (38.2% vs 26.9%, p<0.001, OR 1.24, 95% CI 1.10-1.40).

Our results are suggesting that, as compared to vaginal delivery, the short time outcome of LPIs delivered by C-section may be significantly influenced by the need for resuscitation at birth and birth anemia since other significant neonatal conditions occurred with the same frequency in both groups.

COI: None to declare
ID: 926
TITLE: LOTUS BIRTH: ETHICAL DILEMMA!
AUTHORS: Sonia Goyal 1; Harsha Gowda 2
AFFILIATIONS: Neonatal Department
Birmingham University Hospitals
Birmingham
United Kingdom

CONTENT:

The ‘Lotus Birth’ is defined as not cutting or clamping the cord and placenta remains attached to the infant until it separates naturally. This is also termed as ‘Umbilical nonseverance’ or ‘Physiological cord clamping (PCC)’. There is a theoretical risk of infection to the infant, but severity is unknown. The closest comparable data will be on omphalitis (incidence of 1/1000) in developed countries.

With this background we report a Case of ‘Lotus birth’ where infant needed admission to the neonatal unit. We went through ethical dilemma in dealing with the situation as there are no national or international guidelines and sparingly available literature.

A term infant was born normally following 29 hours of premature rupture of membrane. Infant was born in good condition. Parents wanted ‘Lotus Birth’ therefore, cord was not cut. Infant developed tachypnoea at about 8 hours of age and required oxygen to ma

This situation posed an ethical dilemma for us while counselling parents as there is no evidence based research. What are the potential risks for this infant and to the other infants in the neonatal unit? To deliver a patient-centred care and accommodate family wishes it has to be medically safe. This case report highlights the need for an internationally agreed guideline in managing such although uncommon but potentially challenging situation.

COI: None