

September 22nd, 2023 08:00 - 09:00

POSTER WALK – EPIDEMIOLOGY 2

ID 59. CONGENITAL ABNORMALITIES OF THE KIDNEY AND THE URINARY TRACT (CAKUT): A FOLLOW-UP STUDY FROM THE ANTENATAL PERIOD THROUGH THE FIRST YEAR OF LIFE

Doctor Nazlı İdil Fil¹, **Doctor Ozge Surmeli Onay**¹, Doctor Melih Velipasaoglu², Doctor Aslı Kavaz Tufan³, Doctor Nuran Çetin³, Doctor Tugba Barsan Kaya¹, Professor Ozge Aydemir¹, Professor Ayşe Neslihan Tekin¹

¹Division of Neonatology, Department of Pediatrics, Faculty of Medicine, Eskişehir Osmangazi University, Eskişehir, Türkiye, ²Department of Obstetrics and Gynaecology, Eskişehir Osmangazi University Faculty of Medicine, Eskişehir, Türkiye, ³Division of Pediatric Nephrology, Department of Pediatrics, Faculty of Medicine, Eskişehir Osmangazi University, Eskişehir, Türkiye

Background: Congenital abnormalities of the kidney and the urinary tract (CAKUT) refers to a large group of diseases that include congenital kidney and collecting system abnormalities. The diagnosis of CAKUT is increased by routine antenatal monitoring of pregnant women and the broad application of detailed ultrasonography. This study aimed to investigate the clinical outcomes in the first year of life, the progression of renal functions, and prognostic factors for infants with CAKUT identified by antenatal ultrasonography.

Methods: The study has a retrospective cohort design and the data were obtained from files and electronic records. Between January 2014 and December 2020, 55 infants who met the study criteria were included in the study, and the patients were examined in two groups as collecting system anomalies (CSA) and renal parenchymal



malformations (RPM). The primary outcomes were the incidences of acute and chronic kidney injury as well as the prognostic indicators that bridged the antenatal and postnatal periods.

Results: The collecting system anomalies were found more frequently in the antenatal and postnatal periods, with rates of 54.5% and 56.4%, respectively. The most common type of CAKUT was hydronephrosis with 47.2% in the antenatal period. In both antenatal and postnatal diagnosis, multicystic dysplastic kidney was the most common type of CAKUT in the RPM Group (38.2%). While there was no difference in the development of acute kidney injury between the two groups, chronic kidney disease was more prevalent in the RPM Group ($p < 0.05$). In addition to creatinine, the presence of oligohydramnios, gestational age, and various ultrasonographic signals (loss of corticomedullary differentiation, trabeculation in the bladder, and presence of cyst) were identified as predictive factors for the development of AKI. Furthermore, no infants who met the good prognosis criteria in the antenatal period developed acute kidney injury during postnatal follow-up. Also, no correlation was found between maternal creatinine values and infants' first creatinine values. Figure 1 demonstrates the groups' one-year creatinine follow-up.

Conclusion: Although the RPM Group is at a higher risk of developing chronic kidney disease, we believe it would be beneficial to monitor every newborn with CAKUT from birth with a kidney-protective strategy.

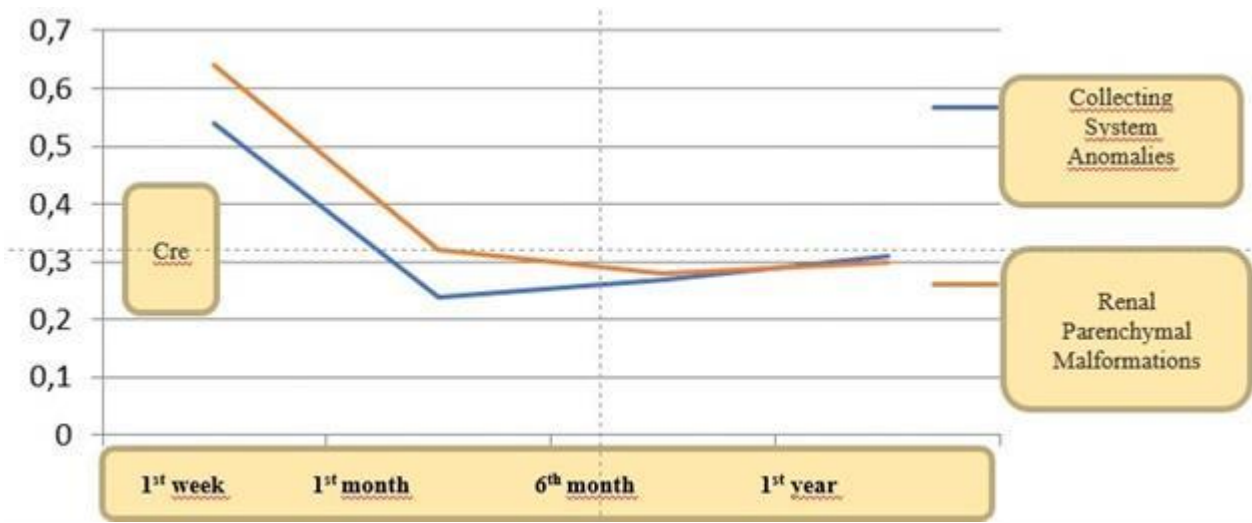


Figure 1. Changes in the serum creatinine values in the one-year follow-up of the study groups.

X-axis represents time, the Y-axis represents serum creatinine (mg/dL)

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X-axis represents time, the Y-axis represents serum creatinine (mg/dL)

None declared

ID 110. Correlation of fetal malformations detected by genetic testing and ultrasound with the amount of amniotic fluid

Professor Artur Beke¹, Dr Atene Simonyi¹, Dr Virag Bartek¹, Professor Istvan Szabo¹
¹Semmelweis University, Budapest, Hungary

Background: Our aim was to investigate the proportion of the various fetal anatomy disorders associated with polyhydramnios or oligohydramnios during prenatal ultrasonography.

Methods: In our study, we have processed the prenatal sonographic and postnatal clinical and fetopathological data of 2622 fetuses with developmental disorders over a 12 years period. We studied the association of fetal disorders with polyhydramnios or oligohydramnios. In order to characterize the degree to which the given disorder is typically associated with polyhydramnios or oligohydramnios, we used the "Association factor" (AF) developed by us for the statistical calculations.

Results: Quantitative differences in amniotic fluid were most often detected in the case of urogenital, as well as abdominal and abdominal wall disorders. In the case of urogenital disorders, more than half of the fetuses, 54.86%, had a quantitative deviation of the amniotic fluid (oligohydramnios 34.72%, polyhydramnios 20.14%). In the case of abdominal and abdominal wall abnormalities, 43.82% of the fetuses had a quantitative deviation of the amniotic fluid (polyhydramnios 31.44%, oligohydramnios 12.38%). Overall, over 30% of amniotic fluid abnormalities were detected in the case of craniospinal, chest and lung disorders, as well as limb disorders and ossification disorders. In the case of craniofacial and cardiovascular disorders, quantitative abnormalities of the amniotic fluid were only detectable in around 20%. Regarding polyhydramnios, the Association Factor (AF) showed a very



high value for craniospinal, abdominal and abdominal wall disorders, and the Association Factor was high for cardiovascular, urogenital, limb disorders and ossification disorders. Regarding oligohydramnios, the Association factor was very high for urogenital disorders.

Conclusions: If during the ultrasound examination the amount of amniotic fluid is less or more than average, special attention should be paid to the ultrasound examination of the urogenital system, abdominal organs, skull and spine, chest and lungs, and the limbs and skeletal system of the fetus. Fetal echocardiography is recommended in case of polyhydramnios.

None declared



ID 515. Comparison of neonatal prognosis admitted to the neonatal ward of our hospital by in-born and out-born status

Doctor Isamu Hokuto¹, Asuka Fujisawa

¹Dept. Pediatrics, St. Marianna University School of Medicine, Kawasaki, Japan

Background

In Japan, 45% of births occur in obstetrics clinics and 54% in hospital obstetrics departments. Newborns are usually cared for by midwives. Newborns in poor condition are transported to a higher facility for treatment, but it is possible that the condition may be worse in the transported infant due to delays in judgment.

Therefore, we compared neonatal cases admitted to our hospital with those born at a primary facility, with respect to the weeks of gestation and birth weight of the neonates who are usually managed at a primary facility.

Method

Neonates who were admitted to the neonatal ward between April 2012 and March 2021, who were 36 weeks or longer in gestation at birth and had a birth weight of 2000 grams or more, were included in the study. They were divided into out-born and in-born groups, and short-term outcomes such as length of hospital stay, respiratory management, and mortality were compared between the two groups. Fetal diagnosis cases were excluded. Statistical analysis was performed by JMP16.

Results

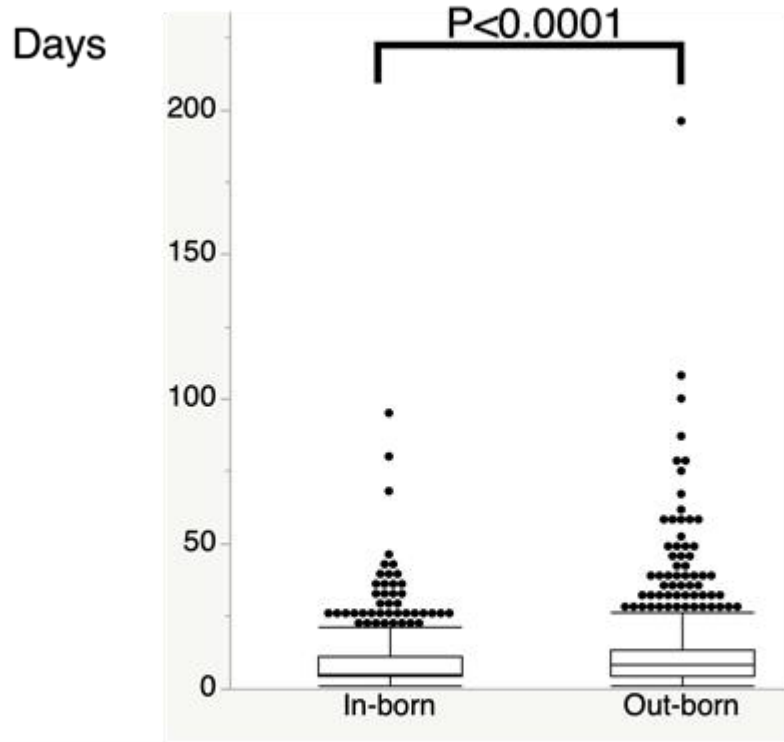
A total of 1148 patients were included: 631 in the out-born group and 517 in the in-born group. The in-born group had a significantly lower birth weight and significantly earlier gestational age at birth. The out-born group had significantly higher cases of congenital anomalies after birth. The out-born group had a significantly later days of

age at admission and a significantly longer length of admission (figure 1) and older corrected gestational weeks at discharge. The number of cases receiving mechanical ventilation was significantly higher in the transported cases, and the duration of the ventilatory management was significantly longer. There were no significant differences in mortality rates.

Conclusion

The out-born group was hospitalized longer and had more severe cases, including an increased number of children on ventilatory management. Medical personnel should be trained in neonatology so that they can provide appropriate transport at the appropriate time. In addition, more cases of congenital anomalies were found after birth in the out-born group. It was considered necessary to improve the accuracy of fetal diagnosis by obstetricians at primary facilities.

Figure 1. Duration of Hospital stay



	In-born	Out-born
Median (interquartile range)	5 (4-11)	8 (4-13)

None declared



ID 772. Fetal “Gallstones” Are Still an Unsolved Mystery

Doctor Dan Boitor Borza¹, Professor Daniel Muresan¹

¹University of Medicine and Pharmacy, Cluj–Napoca, Romania

Background.

Echogenic content in the fetal gallbladder is rather an incidental finding during third-trimester ultrasonography. The etiology, clinical course, and prognosis of this condition remain unclear. We highlight the ultrasound aspects and outcome of this condition and provide a review of the current literature on this issue.

Methods.

This is a retrospective single-center study conducted at the University of Medicine and Pharmacy Cluj–Napoca, Romania, between March 2022 and April 2023. All pregnant patients who were admitted to the hospital and had echogenic content in the fetal gallbladder detected by ultrasound were identified. The clinical and ultrasonography parameters were obtained from the databases of the ultrasound units and the medical records of the patients.

Results.

Four patients were found to have echogenic content in the fetal gallbladder. The mean maternal age at diagnosis was 27.5 years (range 25–31). All patients had singleton pregnancies. The mean gestational age at diagnosis was 36.5 weeks (range 35–40). In all cases, the predominant feature of echogenic content on ultrasound was multiple hyperechogenic foci; additionally, in one case, sludge was also observed. The mean maximal length of the hyperechogenic foci was 3.375 mm (range 1.6–5.4). All fetuses were delivered at full term, either vaginally or by cesarean section. The mean weight at birth was 3082.5 g (range 2800–3450). One of our patients was



diagnosed with COVID-19 at 12 weeks of gestation, representing the third reported case of an association between COVID-19 during pregnancy and echogenic content in the fetal gallbladder. In all four cases, the biliary echogenic content disappeared spontaneously at birth. Neither of the four newborns displayed digestive symptoms or complications during the follow-up.

Conclusion.

The ultrasound description does not ensure a disease diagnosis in the case of echogenic content in the fetal gallbladder. Informing the parents of a clinical diagnosis based purely on ultrasound scans could result in serious psychological problems. Since it resolves on its own throughout the postnatal period, the disorder is typically benign and self-limiting. The babies should be monitored for spontaneous resolution after appropriately reassuring the parents; no medical or surgical intervention is advised if the patients are asymptomatic.

case	1	2	3	4
maternal parameters				
age at diagnosis (years)	31	25	28	26
parity	nullipara	nullipara	multipara	multipara
type of pregnancy	singleton	singleton	singleton	singleton
medical history	cholecystectomy mild COVID-19 at 12 GW miscarriage at 5 GW	miscarriage at 5 GW	cholecystectomy miscarriage at 7 GW	premature birth at 34 GW
actual conditions	hypertriglyceridemia hypercholesterolemia healthy carrier of hepatitis B virus	hereditary prothrombin thrombophilia carrier of group B Streptococcus	cholestasis of pregnancy hypothyroidy	late IUGR
family history	father with diabetes mellitus type 2	mother with diabetes mellitus type 2	negative	negative
BMI (kg/m ²)	26.4	26.1	28.5	25.4
US aspect of EC				
sludge	no	no	yes	no
number of foci	multiple	multiple	multiple	multiple
maximal length (mm)	2.8	3.7	5.4	1.6
distal shadowing	no	no	yes	no
comet tail	yes	no	no	yes
twinkling	not assessed	not assessed	no	no
obstetrical parameters				
GA at diagnosis (weeks)	35	40	36	35
GA at delivery (weeks)	39	40	37	38
mode of delivery	CS on request	CS on request	iterative CS	vaginal
maternal outcome	depression	no complications	no complications	no complications
neonatal parameters				
gender of the newborn	female	male	female	female
weight of the newborn (g)	3080	3000	3450	3000
Apgar score at 5 minutes	10	10	9	10
US at 2 days	resolution	resolution	resolution	resolution
follow-up of the baby	asymptomatic at 1 year	asymptomatic at 5 months	asymptomatic at 3 months	asymptomatic at birth



Table I. Clinical features, ultrasound aspects, and obstetrical and neonatal outcomes of patients

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None declared

ID 860. PREVALENCE OF GROUP B STREPTOCOCCUS IN PREGNANT WOMEN AND THEIR NEONATES BEFORE AND DURING COVID-19 PANDEMIC IN GREECE: A SINGLE-CENTRE EXPERIENCE

Doctor Filippos Filippatos¹, Mrs Vasiliki Daniil¹, Mrs Konstantina Leontari¹, Mrs Ioanna-Maria Konstantinidou¹, Doctor Rozeta Sokou¹, Assistant Professor Zoi Iliodromiti¹, Professor Nicoletta Iacovidou¹, Associate Professor Theodora Boutsikou¹

¹Neonatology Department, Aretaieio Hospital, National and Kapodistrian University of Athens, Athens, Greece, Athens, Greece

Background: Group B Streptococcus (GBS) is a major cause of neonatal sepsis due to maternal GBS colonization during pregnancy, but data regarding comparison of GBS prevalence before and during COVID-19 pandemic are limited. The purpose of this study is to investigate GBS prevalence in pregnant women and neonates and evaluate the importance of neonatal GBS screening with cultures from nasal epithelium, external ear and rectum (NER).

Methods: Neonatal GBS colonization was prospectively investigated in Neonatology Department of Aretaieion Hospital, Athens, Greece. NER cultures were obtained as screening from 01/01/2018 to 08/09/2022 in all newborns who had: 1. unknown GBS status >35 weeks of gestational age or 2. positive GBS status during pregnancy.

Results: From 01/01/2018 to 08/09/2022, a total of 3866 births were performed. Among them, 193/3866 (5%) were GBS positive during pregnancy and 2231/3866 (57.7%) had unknown GBS status >35 weeks. GBS colonization in pregnancy was estimated at 60/852 (7.04%) in 2018, 33/755 (4.37%) in 2019, 41/851 (4.82%) in 2020, 35/855 (4.09%) in 2021 and 24/553 (4.34%) in 2022. There were 24/3866 (%)

neonates with positive GBS NER cultures: 0/852 in 2018, 3/755(0.39%) in 2019, 9/851(1.06%) in 2020, 3/855(0.35%) in 2021 and 9/553(1.63%) in 2022. From 24/3866 GBS positive newborns, 14/1851 (0.76%) were females, 12/2015 (0.6%) were males, 4/393 (1.02%) were preterm, 16/1526 (1.05%) were born with vaginal delivery, 4/165 (2.42%) had non-clear amniotic fluid and 15/1191 (1.26%) had non-automatic rupture of membranes. From 24 GBS positive children, only 6/193 (3.1%) were born from mothers with confirmed GBS (+) cultures, 18/2231 (0.81%) were from mothers with unknown GBS status >35 weeks but none of them had confirmed GBS sepsis until the 3rd month of life. From 2018–2020 there was a female predominance in GBS NER colonization (10/12), but from 2021–2022 male GBS NER colonization was higher (8/12).

Conclusion: GBS NER cultures are important for GBS screening colonization, especially in unknown GBS status >35 weeks. GBS positivity in NER cultures was found low but unignorable with notable gender distribution. Future studies should focus more on GBS prevalence before and during COVID–19 pandemic and associate with clinical and epidemiological parameters.

None declared



ID 166. Risk Factors on Outcome of Low Birth Weight Infants

Doctor Gatot Irawan Sarosa¹, Doctor Gatot Irawan Sarosa, Mahmudah, Anna Mariska, Dimas Tri Anantyo, Adhie Nur Radityo, Arsita Eka Rini Gatot Irawan Sarosa,

Mahmudah, Anna Mariska, Dimas Tri Anantyo, Adhie Nur Radityo, Arsita Eka Rini

¹Kariadi Central General Hospital Hospital Semarang, Semarang, Indonesia

Risk Factors on Outcome of Low Birth Weight Infants

Gatot Irawan Sarosa, Mahmudah, Anna Mariska, Dimas Tri Anantyo,

Adhie Nur Radityo, Arsita Eka Rini

Departement of Pediatrics, Faculty of Medicine, Diponegoro University, Kariadi Hospital, Semarang, Indonesia

Background: Low birth weight babies (LBW) are still a health problem in developing countries and are the top 3 causes of neonatal death. Various factors can cause infant death including maternal, fetal, and neonatal factors. This study aims to determine the magnitude of these risk factors for infant mortality.

Methods: This study is a retrospective with a case control design, using secondary data from medical records of LBW born at RSUP dr. Kariadi Semarang from January 1 to December 31 2020. The inclusion criteria for this study were babies with birth weights less than 2500 grams, born at the Kariadi Hospital in Semarang, complete medical record data with risk factors examined for suitability for gestational age, presence of risk factors for pregnancy in the mother (preeclampsia/eclampsia, PROM, placenta previa, placental abruption, chorioamnionitis), type of delivery, type of diet, presence or absence of congenital abnormalities in the baby, sepsis, and administration of oxygen therapy. The baby's outcome is divided into either living or dead. Data analysis was performed using the SPSS 17 program. The data was processed using the chi square and the Mann–Whitney test.



Results: A total of 1252 babies were born, 401 LBW were obtained with 154 research subjects (77 survival outcomes, 77 death outcomes) meeting the inclusion criteria, most of the male sex (57.8%) were born by cesarean section (51.3%), with gestational age 27.3% extremely preterm, 23.4% very preterm, 29.2% late preterm, 20.1% full term. The risk factor that influences the outcome of LBW is congenital abnormalities (p 0.008, OR = 3.4, 95%, CI = 1.426, 8.34).

Conclusion: From this study it was found that congenital abnormalities are a risk factor that influences the outcome of LBW.

None declared"

ID 241. IS THE INCREASE IN THE PREVALENCE OF NEONATAL ABSTINENCE SYNDROME IMPACTED BY THE COVID -19 PANDEMIC?

Doctor Koraljka Manestar Rukavina¹, Maja Ješić, Davor Romić, Suzana Fučkor, Maja Zaninović, Dorotea Drašković, Branimir Peter, Iva Bilić Čače

¹Clinical Hospital Center Rijeka, Rijeka, Croatia

Addiction disease is a global public health and socioeconomic problem and its prevalence is constantly rising. The population of pregnant women isn't excluded and the newborn is then a passive addict. As many as 55–94% of opioids exposed newborns will develop Neonatal Abstinence Syndrome (NAS), and 30–65% of them require pharmacological treatment.

Researches show that about 275 million people worldwide are addicted to some form of addictive substances. The incidence of NAS has been on the rise in the last decade, ranging from 4/1000 newborns in 2010 to 7/1000 newborns in 2017.

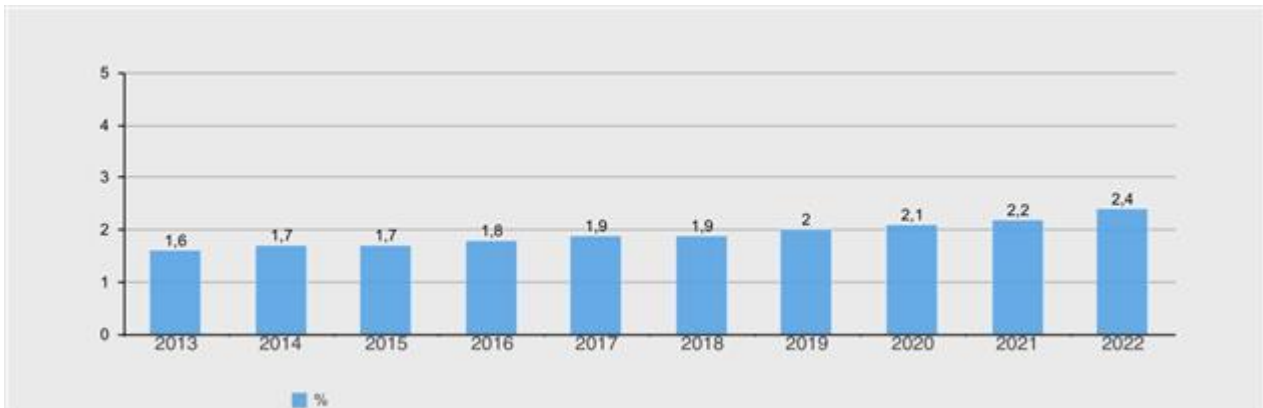
Addiction is a health problem with environmental, biological and psychosocial characteristics. In 2020, the world was hit by the COVID–19 pandemic that affected all aspects of the population's lives. Due to the increased impacts of social and economic stressors, there has been an increase in reported drug use and overdose rates.

Our goal was to compare the prenatal exposure of newborns exposed to opioids before and during the COVID–19 pandemic, and to assess the impact of the pandemic on the increase in the prevalence of neonatal abstinence syndrome.

We analyzed data collected at the Clinical Hospital Centre Rijeka, in Croatia. The cohort before Covid –19 is defined by newborns born from 01.01.2013 to 31.12.2019, and the Covid –19 cohort of newborns born from 01.01.2020. to 31.12.2022.

The results of research show that during the COVID–19 pandemic, the prevalence of newborns with neonatal abstinence syndrome increased by 10% for each year,

compared to 5,7% for each year in cohort before Covid-19. This trend can be partially explained by a gradual increase in prevalence in the last 10 years (figure 1) and partially by increasing consumption of opioid agents in the pandemic. Also, given the burden on hospital systems during the pandemic, we can assume that in fact all addicts (and pregnant addicts) were not timely reported for treatment. Preventive measures, primarily education of pregnant women and early recognition of signs of addiction of pregnant women and treatment of addiction during pregnancy can affect not only the health of newborns and reduce the cost of hospital treatment.



A gradual increase in prevalence from 2013 to 2022.

A gradual increase in prevalence from 2013 to 2022.

None declared.



ID 1015.NEONATAL SKULL DEPRESSION – THE ROLE OF CRANIAL ULTRASOUND

Mr André Assunção¹, Mrs Filipa Flor-de-Lima^{2,3}, Mr Josué Pereira^{3,4}, Mrs Daniela Pinto^{3,5}

¹Department of Pediatrics, Centro Hospitalar Universitário São João, Porto, Portugal,

²Department of Pediatrics, Lusíadas Hospital, Porto, Portugal, ³Faculty of Medicine, University of Porto, Porto, Portugal, ⁴Department of Pediatric Neurosurgery – Neuroscience Center, CUF Hospital, Porto, Portugal, ⁵Department of Pediatric Radiology, Lusíadas Hospital, Porto, Portugal

Background: Congenital skull depression (CSD) is a rare condition with an incidence of 1–2.5 cases per 10,000 live births. The cause of CSD is usually unknown, but it is a non-traumatic condition that may result from external forces shaping the neonatal skull during pregnancy (e.g. uterine fibroids, bony prominences of the maternal pelvis or spine, or the body part of a twin) or during labor (e.g. instrumental delivery or by the hands of the obstetrician). While computed tomography is the gold-standard for diagnosing skull fractures and traumatic brain injury, it exposes infants to ionizing radiation and increases the risk of cancer over lifetime. Cranial ultrasound has shown promise as a noninvasive and readily available imaging technique for assessing skull anomalies.

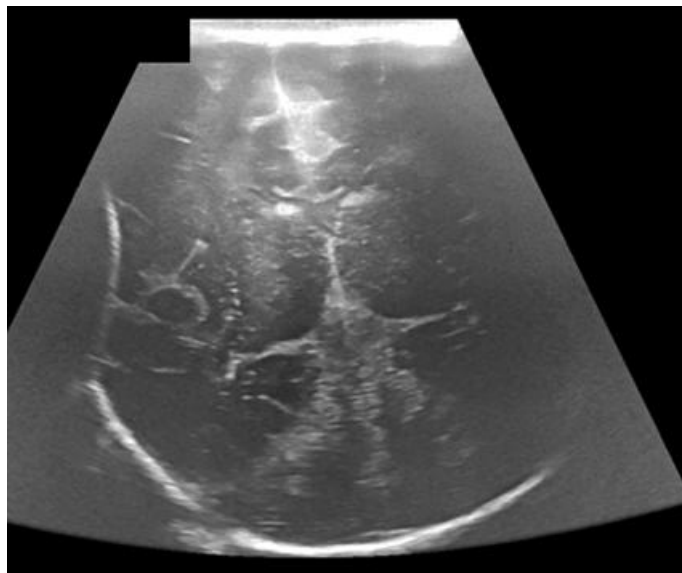
Given the limited literature on this rare condition and its follow-up, we present a case of a neonate with CSD managed through clinical assessments and ultrasound.

Case Report: Following an uneventful term pregnancy, a female infant was delivered via elective C-section, without instrumentation nor need for resuscitation. The infant weighed 2680g, measured 46cm in height, and 33.5cm in head circumference.

Physical examination revealed a right parietal skull depression (SD); the rest of the examination, including neurological status, was unremarkable. Cranial ultrasound at

day 3 of life revealed an abnormal skull depression with no evidence of intracranial structural anomalies. At 1 month of age, clinical examination revealed a decreasing SD, which was supported by ultrasound imaging, ultimately resulting in complete regression.

Conclusion: Non-traumatic CSD is a rare condition, most commonly of unknown etiology but associated with external pressure on the cartilaginous and moldable neonatal skull. Such external forces can arise from uterine fibroids, bony prominences of the maternal pelvis or spine, the body of a twin or instrumental delivery. Most reported cases of SD resolve spontaneously with a conservative approach, although some may require neurosurgery for correction. Therefore, we present a case of a non-traumatic neonatal congenital SD, emphasizing a conservative approach in the absence of neurological symptoms and the use of a non-ionizing imaging method for initial evaluation and follow-up. Co-evaluation by a pediatric neurosurgeon is highly recommended.





Transfontenelar ultrasound at day 3 of life showing no brain anomalies from the depressed skull bone

Transfontenelar ultrasound at day 3 of life showing no brain anomalies from the depressed skull bone

None declared



ID 662. INCIDENCE OF VERTICAL TRANSMISSION IN NEONATES OF MOTHERS WITH SARS-CoV-2 AND CLINICAL OUTCOME IN A UNIVERSITY HOSPITAL IN SOUTHERN BRAZIL FROM 2020 TO 2021

Professor Paulo De Jesus Nader, MD Flavia Serafim, Professor Silvana Salgado

Nader

¹HU Canoas, Porto Alegre, Brazil

Background : Pregnant women are considered a population that presents high risk when infected by SARS-Cov-2, being included in the risk group. There is concern about vertical transmission of the virus and its effects on the neonate. An increase in premature births and admission of newborns to intensive care units when born to mothers exposed to the virus is reported in the literature. Several studies report that vertical transmission of the virus is not observed when infection prevention and control care is implemented.

Methods: A retrospective cohort study was conducted analyzing the outcomes of premature newborns of SARS-Cov-2 positive mothers at the University Hospital of Canoas, located in the metropolitan region of Porto Alegre, Rio Grande do Sul. The patients included in the study were those who were born between July 2020 to September 2021.

Results: Data from 20 pregnant women and their newborns were included in the study. The incidence of prematurity was 90% in this population. The interruption of pregnancy due to maternal conditions of respiratory failure was 50%. Preterm infants of mothers on mechanical ventilation (MV) with interruption of pregnancy had lower weight, lower gestational age and it was necessary to use MV. Surfactant was administered in 30% of the ventilated newborns. Two of the newborns in the study

tested positive (PCR) for SARS-CoV-2 (10%), in the group of mothers on MV. The group of preterm infants of stable mothers did not use MV and all were negative (PCR) for SARS-CoV-2.

Conclusion: The neonatal mortality rate was 10% in cases of mothers on MV compared with no deaths in cases of stable maternal condition. The rate of vertical transmission of SARS-CoV-2 was 10% in mothers on MV. Neonates of stable mothers did not require MV.

None declared



ID 167. Characteristics and Clinical Features of Newborn with Congenital Abdominal Abnormalities

Doctor Gatot Irawan Sarosa¹, Doctor Gatot Irawan Sarosa, Patricia Vanessa, Gerin Orviyanti, Andi Fatmawati, Dimas Tri Anantyo, Adhie Nur Radityo, Arsita Eka Rini
Gatot Irawan Sarosa, Patricia Vanessa, Gerin Orviyanti, Andi Fatmawati, Dimas Tri Anantyo, Adhie Nur Radityo, Arsita Eka Rini

¹Kariadi Central General Hospital Semarang, Semarang, Indonesia

ABSTRACT

Characteristics and Clinical Features of Newborn with Congenital Abdominal Abnormalities

Gatot Irawan Sarosa, Patricia Vanessa, Gerin Orviyanti, Andi Fatmawati, Dimas Tri Anantyo, Adhie Nur Radityo, Arsita Eka Rini

Departement of Pediatrics, Faculty of Medicine, Diponegoro University, Kariadi Hospital, Semarang, Indonesia

Background: Abdominal congenital abnormalities in infants vary from abnormalities in the upper, lower digestive tract and abdominal wall. This situation poses a risk of interference with feeding which can have an impact on the growth and development of the baby. The purpose of this study was to describe the characteristics and clinical features of newborns with abdominal congenital abnormalities.

Methods: The data in this descriptive study were obtained from newborns with congenital abdominal abnormalities who were treated at Dr. Kariadi Semarang during the period October 2020 to March 2021. Data on a categorical scale are presented in the form of quantity and frequency.



Results: There were 49 newborns with abdominal congenital abnormalities with the majority of the abnormalities were lower digestive tract abnormalities (55.1%). It is more frequent in males (55.1%) than females and term infants (77.6%). Disorders of the respiratory system were mostly found in infants with abnormalities of the abdominal wall. Defecation disorder and history of total parenteral nutrition were more common in the baby with disorder of the gastrointestinal tract. The incidence of infection was similar in the both upper gastrointestinal tract abnormalities and abdominal wall abnormalities. Surgery was rarely performed on abnormalities of the abdominal wall. The majority of infants with congenital abdominal abnormalities had a good outcome (77.6%).

Conclusion: Abdominal congenital abnormalities in newborns have varying characteristics and clinical features and the majority have a good outcome. It is important to detect comorbidities as early as possible to reduce morbidity and mortality in newborn.

None declared".



ID 182. INNOVATING PORTUGUESE NEONATAL HEALTHCARE: DOMICILIARY SERVICES AS A PROJECT OF PORTUGUESE RECOVERY AND RESILIENCE PLAN (RRP)

Doctor Fátima Menezes¹, Doctor Fátima Fonseca¹, Doctor Sandra Silva¹, Doctor Virgínia Monteiro¹

¹Centro Hospitalar Entre Douro E Vouga, Santa Maria Da Feira, Portugal

BACKGROUND

Prematurity remains a major public health problem, stressing family and healthcare systems to its limits, requiring multidisciplinary teams to attend individualized plans of treatment.

Caregivers from vulnerable communities, with debilitated physical or mental conditions, have a higher risk of burn-out and need an individualized follow-up.

Setting our goal on enhancing family experience, we aimed at decentralizing outpatient consultations and provide domiciliary supportive and diagnostic care in the first six months after discharge. Our level II district Hospital, CHEDV, population of 340000 inhabitants in a 900 km² territory, is set in the Metropolitan Oporto Area. This territory is full of inequities concerning accessibility, economic activities and literacy.

Domiciliary consultations will have a positive impact on families' economy and wellbeing, and prevent infectious diseases.

METHODS

In 2021, there were born 126 preterm babies, of which 79 needed intensive care; 59 had less than 35 weeks gestation.

Hospital Social Services evaluates around 270 families per year.



With Pandemic infection, European Community decided to finance its countries to ameliorate its economic and social impact.

In March 2022, we applied for these RRP funds, listing the equipment necessary for medical and nursing team to provide domiciliary consultation, blood tests or ultrasound. Interaction with primary care setting and local social services is part of this healthcare program.

RESULTS

This project was just approved as RRP, and is under development.

Authors believe partnerships between hospital, primary healthcare and social community services will facilitate families' access to healthcare, tailored to their needs, and enhance their experience and ameliorate health circuits.

CONCLUSION

Newborns with chronic disease, especially if caregivers have mental or physical conditions, constitute a vulnerable group in any population. We aim to support these families, improving their experience throughout healthcare systems, empowering caregivers, with health and economic advantages.

None declared

ID 350. Mortality risks for extremely preterm neonate in the first three days

Doctor Marija Milic¹, Doctor Tanja Lazic Mitrovic¹, Doctor Smiljana Mihailovic¹,
Doctor Tamara Slijivancanin Jakovljevic¹, Professor Zeljko Mikovic²

¹Gynecology And Obstetrics Narodni Front, Belgrade, Serbia, ²Faculty of medicine
University of Belgrade, Belgrade, Serbia

Background:

It is estimated that 15 million babies born each year are preterm, of which more than 1 million die as a result of prematurity and related complications. Identification of the risk factors for preterm death is important for developing specific interventions. There are many studies that addressed the risk factors for preterm infant death, however, the findings are varied.

Methods

Information on all live-born extremely premature infants delivered in Obstetrics and Gynecology Clinic “Narodni Front” from 1st January 2022 till 31st December 2022. was gathered, together with perinatal risk factors available at birth. Data are described as numbers and proportions, or medians. The risk factor distribution among survivors and infants who died was compared with the Mann–Whitney U test, x square test or the Fisher exact test, with a p-value < 0.05 considered as statistically significant.

Results

Out of the 82 extremely preterm neonates the majority was born at 25 gestational week (16 (31,3%)), while only one (1,2%) was born at 21 and 22 gestational week. The mean gestational age was 26 weeks. The average weight at birth was 811 grams. After

first 72 hours there were 54 (65,85%) survivors and 28 (34,15%) deaths. The significant risk factors for preterm deaths were gestational age ($p < 0.00001$), weight at birth ($p = 0,0002$), 1st minute Apgar score (0,00012), 5th minute Apgar Score ($p < 0,00001$), mode of delivery ($p = 0,013$), while sex ($p = 0,164$) and In Vitro Fertilization ($p = 0,698$) were not significant mortality risk factors. There were also significant difference between pH ($p = 0,002$), pCO₂ ($p = 0,010$), lactate ($p < 0.00001$), Hemoglobin ($p = 0.00142$) and Platelet ($p = 0.02852$).

Conclusion

The study identified several risk factors for death among extremely preterm neonates during first three days of life. It is important to address neonatal and maternal factors for optimum infant medical care and to decrease the rate of preterm death.

None declared