of these women. The main causes of maternal morbidity were pre-eclampsia 29% and postpartum hemorrhage 11%, 7% of our cases required management in an intensive care unit. Regarding the newborns, the average weight was 2936 (± 351) grams, only 7% of these newborns had an APGAR < 7 at the first minute and required admission to the neonatal intensive care unit. No maternal or neonatal deaths were recorded. In the bivariate analysis, a statistically significant association was observed between having COVID-19 and presenting a high obstetric risk, the development of pre-eclampsia and admission to the maternal intensive care unit.

**Conclusions:** In our experience, COVID-19 infection should be a characteristic of interest to offer timely medical management and thus prevent maternal and perinatal morbidity.

**EP32.09**
**Fetal supraventricular tachycardia and maternal COVID-19 vaccination: possible association**

W. Abdallah1, M. Nassar1, J. Rechdan2, L.S. Daou3, R. Lakkis4, D. Atallah5

1Obstetrics and Gynecology, Hotel Dieu, Zalka, Lebanon; 2Lebanese American University, Beirut, Lebanon; 3St Joseph University, Beirut, Lebanon

Fetal supraventricular tachycardia occurs in 1/25000 pregnancies. However, vaccines can cause tachycardia. Some reports described tachycardia after COVID-19 vaccine. We present herein 2 cases of fetal supraventricular tachycardia following the administration of the Pfizer COVID-19 vaccine during pregnancy.

In the first case, a 27-year-old patient presented at 31 weeks for a routine visit where a fetal supraventricular tachycardia was identified. Her obstetric history was unremarkable. She received her vaccination at 14 weeks and 17 weeks. After investigations, no maternal or fetal factors were detected. The patient was admitted and Digoxin 0.5mg was started every 12 hours. The fetal cardiac rate became normal at day 4. The patient was discharged with digoxin 0.25 mg every 12 hours until delivery with a plan for NST weekly. She delivered vaginally a healthy male baby with a normal heart rate at 39 weeks. Digoxin therapy was maintained in the newborn with monitoring TSH for 6 months.

In the second case, a 34-year-old patient was diagnosed with fetal supraventricular tachycardia at 29 weeks of gestation. The patient is known to have well-controlled primary hypertension and gestational diabetes. She has received her first dose of vaccine at 27 weeks. Full investigations revealed no maternal or fetal cause for fetal arrhythmia. A fetal sinus rhythm was detected after 12 hours of the start of Digoxin and Bisoprolol. The patient then received her second dose of the COVID-19 vaccine at 31 weeks. Preterm labour occurred at 33 weeks and she delivered a healthy male infant with a normal heart rate. The baby was kept under observation and arrhythmia recurred eventually on day 4 postnatally. Fetal heart rate remained normal after launching amiodarone therapy with digoxin. He was discharged with a straight follow-up. Informed consent was obtained from the couple for the scientific use of images and information.

**EP32.10**
**Abstract withdrawn**

**EP32.11**
**Prenatal resolution of ascites in a case of congenital toxoplasmosis: case report**

R. Aragon, F. Rojas Borda, E. Vargas

Faculty of Medicine and Health Sciences, Nueva Granada Military University, Bogotá, Colombia

Congenital toxoplasmosis is a zoonosis caused by Toxoplasma gondii. Vertical transmission occurs by maternal primary infection acquired during pregnancy. Considered a preventable and treatable disease, we present the case of a 35-year-old patient, 27 weeks pregnant with diagnosis of gestational toxoplasmosis by seroconversion of IgM antibodies for IgG and IgM positive toxoplasmosis in the second trimester. In the obstetric ultrasound, the fetal biometry showed abdominal circumference greater than 99% due to hepatomegaly associated with asci. In the evaluation of the fetal nervous system by neurosonography, were observed periventricular calcifications. Amniocentesis was performed with PCR in amniotic fluid positive for toxoplasmosis. The patient was treated by administration of Pyrimethamine 25 mg oral, Sulfadoxine 500 mg oral and folic acid 10 mg per day. Fetal ultrasound control every 15 days was indicated where we could demonstrate resolution at four weeks of hepatomegaly and fetal ascites. At week 31, a study with fetal resonance was completed without abnormal findings.

Finally, the patient had a vaginal delivery at 39 weeks. The newborn presented adequate weight for gestational age, positive IgG, and negative IgM serology for toxoplasmosis. Fetal abdominal ultrasound was performed without observing hepatomegaly or ascites in the newborn. Treatment continued with Pyrimethamine plus Sulfadoxine and folic until reaching the first year of life with normal neurological development.

**Supporting information can be found in the online version of this abstract**

**EP32.12**
**The impact of maternal COVID-19 during pregnancy on the fetal heart: does it cause subclinical postnatal echocardiographic myocardial dysfunction?**

L. Gelernter Yaniv1,2, A. Riskin1,2, L. Sharnakany1

1Pediatrics, Bnai Zion Medical Center, Haifa, Israel; 2Technion Israel Institute of Technology, Ruth and Bruce Rappaport Faculty of Medicine, Haifa, Israel; 3Neonatology, Bnai Zion Medical Center, Haifa, Israel

**Objectives:** COVID-19 infection during pregnancy do not cause severe maternal outcomes but poses a higher risk for fetal distress. Possible implication on the fetal heart may result in myocarditis, cardiomyopathy, or valves malformation, as was suggested for other viruses. We looked for subclinical echocardiographic findings (valvular, pulmonary hypertension and myocardial function), in asymptomatic neonates born to mothers who had COVID-19 during pregnancy.

**Methods:** All neonates born to mothers with COVID-19 during pregnancy underwent echocardiography between days of life 1-4. Time of infection, severity, immunisation status, gestational and perinatal history were collected. All mothers where healthy at the time of delivery.

**Results:** Fifty-five asymptomatic neonates underwent echocardiography. 85.4% were born at term. Valvular findings occurred in 3 (5.4%): 2 mild mitral regurgitation and one severe pulmonary stenosis (PS) requiring intervention. 3 had VSD and one arch hypoplasia. All neonates had normal myocardial contraction and TAPSE. 45% of mothers had COVID-19 during the 3rd trimester. 36.8% were not immunised against COVID-19. 34.5% were asymptomatic and 51% had mild symptoms.

**Conclusions:** Of the asymptomatic newborn, one had severe valvular malformation (PS). None developed cardiac dysfunction, (myocarditis, cardiomyopathy). Structural abnormalities (VSD, arch hypoplasia) were not considered to be related to Covid-19. None had pulmonary hypertension. Most women had asymptomatic/mild COVID-19. It might be attributed to Omicron being the dominant variant during the study period and vaccine protection. At this
point, additional valvular or myocardial morbidity attributed to maternal COVID-19 was not detected among asymptomatic newborns compared to the known baseline prevalence. Further data is needed to elaborate our knowledge of the possible cardiac effect of maternal illness. Also, it cannot be determined whether disease severity influences fetal cardiac manifestations since all mothers had a mild disease.

EP33: DEFINITIONS

EP33.01 Transverse cerebellar diameter in small-for-gestational-age and growth-restricted fetuses
T. Yarygina1, R. Gasanova1, O. Marzoeva1, E. Syphchenko1, E. Leonova2, A. Gus2
1 Perinatal Cardiology Center, FGBU Nacional’nuy Medicinskij Issledovatel’skij Centr Serdece-Sosudistoj Hirurgii Imeni AN Bakuleva, Moscow, Russian Federation; 2 FGBU Nacional’nuy Medicinskij Issledovatel’skij Centr Akuserstva Ginekologii i Perinatologii Imeni Akademika VI Kulakova, Moscow, Russian Federation

Objectives: The aim of this study was to compare transverse cerebellar diameter (TCD), head circumference (HC), and TCD/HC ratio between FGR, SGA and non-SGA (controls) fetuses.

Methods: This was a retrospective cohort cross-sectional study of 8000 non-anomalous fetuses that were evaluated at their 24 - 40 weeks of gestational age. FGR was defined according to ISUOG recommendation (2019), including decreasing of cerebroplacental ratio as a sign of brain sparing. SGA was defined as estimated growth from 24 to 40 weeks of gestational age increasing in dynamics from 12.2% to 16.6% in FGR, SGA and controls, respectively. In comparison with controls, in FGR cases HC was significantly smaller from 24 to 37 weeks (p < 0.001), TCD was smaller from 24 to 37 weeks (p < 0.01), conversely, TCD/HC ratio was bigger from 24 to 32 weeks of pregnancy (p < 0.05). In comparison with controls, in SGA cases HC and TCD were smaller from 27 to 39 weeks (p < 0.01), while TCD/HC ratio had no significant differences (p > 0.05). In cases with EFW below 10th centile, HC was smaller in FGR than in SGA fetuses from 25 to 37 weeks (p < 0.05), TCD and TCD/HC ratio had no significant differences (p ≤ 0.05).

Conclusions: Fetal smallness, especially FGR, is strongly associated with lower values of transverse cerebellar diameter and head circumference in comparison with age-matched controls. The disappearance of pre-existing differences in TCD/HC ratio between FGR cases and controls can be attributed to comparative slower cerebellum growth in FGR fetuses. Presence of brain sparing in FGR is not associated with differences in TCD, TCD/HC ratio in comparison with SGA cases. The absence of a statistical difference between the groups of fetuses at term pregnancy explained by extremely small number of FGR/SGA cases.

EP33.02 Performance of cerebral/placental-uterine Doppler ratio in the prediction of adverse perinatal outcome in fetuses with growth alterations
P. Sarmiento5, D. Cepeda3, N. Ayala1, N. Rodriguez1, A. Sarmiento1,4
1 Obstetrics and Gynecology, Fundacion Santa Fe de Bogotá University Hospital, Bogotá, Colombia; 2 School of Medicine, El Bosque University, Bogotá, Colombia; 3 Obstetrics and Gynecology, Centro de Ultrasonido para la Mujer, Bogotá, Colombia; 4 School of Medicine, University of Los Andes, Bogotá, Colombia

Objectives: Doppler evaluation of fetal and maternal hemodynamics is part of the management of fetal growth alterations (FGA). The aim was to assess the cerebral/placental-uterine ratio (CPUR) performance in the prediction of adverse perinatal outcome (APO) in fetuses with FGA.

Methods: We performed a retrospectively analysis (2019-2021) of pregnancies with diagnosis of FGA (fetal growth restriction (FGR) or small for gestational age (SGA)) between 32 - 37 weeks, who were evaluated at our ultrasound unit. Pulsatility indices (PI) of middle cerebral artery (MCA), umbilical artery (UA) and uterine arteries (UtA) were retrieved from ultrasound reports. Cerebroplacental ratio (CPR) and CPUR were calculated and converted into multiples of the median (MoM). APO was defined by 5 neonatal outcomes: diagnosis of FGR or SGA at birth, hospitalisation, admission to NICU and mortality; and 3 maternal variables: hospitalisation, Pre-eclampsia, and mortality. Descriptive statistics, bivariate analysis and logistic regression were performed.

Results: A preliminary report of 172 fetuses with FGA were included with a median gestational age (GA) of 34 weeks (IQR 33 - 35 w). 113 (65.7%) had a diagnosis of FGR and 59 (34.3%) of SGA. 120 (69.8%) were delivered by Caesarean section. Maternal median age was 33 years (IQR 29.3 - 37 y). APO was identified in 112 (65.1%) patients. Delivery mode, FGR and SGA prenatal diagnosis were associated with APO (p < 0.05). Additionally, variables as GA, number of gestations, UtAMoM, CPRMoM and CPURMoM showed statistically significant differences. Logistic regression showed that CPURMoM compared with CPRMoM and UtAMoM had a higher diagnostic performance as a predictor of APO (p < 0.05).

Conclusions: In the evaluation of fetuses with diagnosis of growth alteration, the CPUR Doppler index was a better predictor of APO when compared to CPR or UtA. Further robust research is needed to consider the inclusion of this index into clinical practice.

EP33.03 Relationship between maternal-fetal Doppler and birthweight in a low-risk pregnancies: a prospective multicentre study
A. Dall’Asta1, R. Ramirez Zegarra1,2, F. Figueras3, C. Lees4, G. Rizzo5, T. Frusca1, T. Ghiz1
1 Medicine and Surgery, Obstetrics and Gynecology Unit, University of Parma, Parma, Italy; 2 Obstetrics, Technical University of Munich, Munich, Germany; 3 University of Barcelona, Barcelona, Spain; 4 Imperial College Healthcare NHS Trust, London, United Kingdom; 5 Obstetrics and Gynecology, University of Rome “Tor Vergata”, Rome, Italy; 6 Medicine and Surgery, University of Parma, Parma, Italy

Objectives: To evaluate the relationship between umbilical artery (UA), middle cerebral artery (MCA), cerebroplacental ratio (CPR) and uterine arteries (UtA) Doppler and birthweight (BW) in a cohort of uncomplicated singleton term pregnancies enrolled in early labour.

Methods: Multicentre prospective observational study involving four tertiary units. Low risk pregnancies as defined by the absence of any maternal morbidity and pregnancy complications were included. Cases were submitted to Doppler measurement of the UA, MCA and UtA in early labour; the CPR was computed by dividing MCA and UA pulsatility index (PI). The Doppler parameters were converted into multiples of the median (MoM) to adjust for gestational age. Cases were pooled in 6 subgroups according to BW percentiles (BW < 10th, BW between 11th-25th, BW between 26th-49th, BW between 50th-74th, BW between 75th-99th and BW > 90th percentile).

Results: Overall, 804 patients were included. A positive correlation was found between BW and UA PI MoM (r = 0.18, p < 0.01) and