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Background. Congenital cytomegalovirus (cCMV) infection is the major cause of sensorineural hearing loss and the most frequent viral origin of neurodevelopmental impairment. The aim of this study was to evaluate incidence and characteristics of symptomatic cCMV infection in neonates in Korea with high maternal CMV seroprevalence up to 95%.

Methods. Retrospective chart review of all infants born at CHU Sainte-Justine Hospital Center Maternel Infantile d’Infectiologie Congenitale between January 2001 to February 2015. Classification of infected infants was based on the isolation of cytomegalovirus in clinical sample or positive maternal serology, maternal seroconversion or presence of anti-CMV IgM in old samples, or maternal seroconversion and positive infant dried blood spot CMV DNA PCR. Categorization of infected infants was define as symptomatic or asymptomatic. Symptomatic infants were those with clinical manifestations of congenital CMV infection (cCMV), there is little consensus on the management of asymptomatic newborns, and on the role or type of neuroimaging to be performed in infected infants. The objective of this study was to assess the concordance between head ultrasonography (US) and magnetic resonance imaging (MRI) in identifying neurological abnormalities in infants with cCMV infection.

Results. Of 46 cases of cCMV infection, 10 were categorized as clinically asymptomatic, and were identified following maternal seroconversion during pregnancy (8) or during targeted screening of HIV exposed newborns (2). Twenty-eight patients had US followed by MRI, 4 underwent US followed by CT (3) or CT and MRI(1), and 1 had only 1 imaging test performed by US (CT, or MRI). Among cases with sequential US and MRI, US was performed at a mean of 13 days (SD ±19) and MRI at a mean of 70 days of age (SD ±164). In 20/28 cases, US and MRI were concordant (9 abnormal, 11 normal). In 4 cases, US was normal and MRI later found to be abnormal; however in these 4 cases, patients were clinically asymptomatic and the imaging findings did not influence the decision to treat. In 4 cases, US was abnormal and subsequent MRI found to be normal; in 2 of these cases, patients were clinically symptomatic and the imaging findings did not influence the decision to treat. However, in 2 cases, the patients were clinically asymptomatic, and were categorized as symptomatic for treatment based only on the abnormal US findings.

Conclusion. In this study, there was a discordance between MRI and US findings in 29% of infants with cCMV infection. While the addition of MRI to baseline head ultrasound did not influence the decision to treat in clinically symptomatic infants, the addition of MRI for infants with abnormal head US who are clinically asymptomatic could help refine treatment decisions in these cases.

Disclosures. All authors: No reported disclosures.

2326. "Targeted" Screening for Cytomegalovirus (CMV)-Related Hearing Loss: It’s Time for Universal CMV Screening in the NICU!
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Background. Congenital CMV infection is the leading cause of non-genetic sensorineural hearing loss in infancy. Antiviral therapy has been shown to improve hearing outcomes, and thus "targeted" CMV screening for newborns who do not pass the newborn hearing screen has been recommended. Diagnosis of congenital CMV infection requires that the infant be tested for CMV in the first 3 weeks of age. Our objective was to determine when infants in the neonatal intensive care unit (NICU) have their first hearing screen performed and thus inform the practice of targeted screening for determination of CMV-related hearing loss.

Methods. Retrospective review of the electronic health records of all infants admitted to the Level 4 newborn NICU at Nationwide Children’s Hospital, Columbus, OH from August 2016 to May 2017. Demographic and clinical data were obtained, and the timing of the first hearing screen performed was recorded. This study would provide the baseline information for epidemiology of symptomatic cCMV in Korean newborns and measurement of disease burden of cCMV disease in Korea is warranted.

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2325. Head Ultrasound or MRI? The Role of Neuroimaging in the Assessment of Symptomatic and Asymptomatic Infants with Congenital CMV Infection
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Background. Despite interest in universal screening for congenital CMV infection (cCMV), there is little consensus on the management of asymptomatic newborns, and on the role or type of neuroimaging to be performed in infected infants. The objective of this study was to assess the concordance between head ultrasonography (US) and magnetic resonance imaging (MRI) in identifying neurological abnormalities in infants with cCMV infection.

Methods. Retrospective review of infants with cCMV infection, referred to the Centre Maternel Infantile d’Infectiologie Congenitale at Sainte-Justine Hospital Center in Montreal, between 2008 and 2016. This was a secondary analysis of a previous study and included only patients who underwent baseline CMV qPCR and had neuroimaging records available.

Results. Of 46 cases of cCMV infection, 10 were categorized as clinically asymptomatic, and were identified following maternal seroconversion during pregnancy (8) or during targeted screening of HIV exposed newborns (2). Twenty-eight patients had US followed by MRI, 4 underwent US followed by CT (3) or CT and MRI(1), and 1 had only 1 imaging test performed by US (CT, or MRI). Among cases with sequential US and MRI, US was performed at a mean of 13 days (SD ±19) and MRI at a mean of 70 days of age (SD ±164). In 20/28 cases, US and MRI were concordant (9 abnormal, 11 normal). In 4 cases, US was normal and MRI later found to be abnormal; however in these 4 cases, patients were clinically asymptomatic and the imaging findings did not influence the decision to treat. In 4 cases, US was abnormal and subsequent MRI found to be normal; in 2 of these cases, patients were clinically symptomatic and the imaging findings did not influence the decision to treat. However, in 2 cases, the patients were clinically asymptomatic, and were categorized as symptomatic for treatment based only on the abnormal US findings.

Conclusion. In this study, there was a discordance between MRI and US findings in 29% of infants with cCMV infection. While the addition of MRI to baseline head ultrasound did not influence the decision to treat in clinically symptomatic infants, the addition of MRI for infants with abnormal head US who are clinically asymptomatic could help refine treatment decisions in these cases.

Disclosures. All authors: No reported disclosures.

2327. Monitoring Of Cytomegalovirus Infection In Non-Transplant Pediatric Leukemia During Chemotherapy
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Background. Cytomegalovirus (CMV) infection is a significant cause of morbidity and mortality in post-transplant setting, however, it has been increasingly recognized in non- pediatric transplant leukemia patients. We postulate that CMV reactivation may occur during chemotherapy, without any intervention, finally it can progress to CMV end organ diseases. This study was aimed to assess the prevalence and associated factors of CMV infection in pediatric leukemia patients.

Methods. A cross-sectional study involving 50 pediatric leukemia patients receiving chemotherapy at Ramathibodi Hospital, Bangkok, Thailand from December 2015 to December 2016 was performed. Plasma CMV viral load quantification by the Abbott RealTime CMV assay (Abbott Molecular Inc., Des Plaines, IL, USA) was monitored in different phases of chemotherapy: post-induction, post-consolidation, post-intensification, and maintenance.

Results. Of 50 patients enrolled, 141 blood tests were evaluated. The overall prevalence of CMV DNAemia (≥ 31.2 IU/ml) and high-level CMV DNAemia (≥ 1,500 IU/ml) were 52.0% (26 of 50) and 16.0% (8 of 50), respectively. All patients with high-level CMV DNAemia were in maintenance phase of chemotherapy. One patient had CMV retinitis, while the rest had no end organ diseases. Lymphocyte count increase significantly associates with protection from high-level CMV DNAemia, odds