Methods Dried blood spots (DBS) were collected for detection of Toxoplasma-specific IgG and IgM using the ELISA and FEIA, respectively. Newborns with any of positive results were referred for second test within one month. Newborns with seroconversion to positive IgM in the second test or with two positive results of IgM in the first and second tests were identified as congenital Toxoplasmosis. The confirmed newborns were suggested for follow-up of auditory function and neurodevelopment for 3 years.

Results of the 723 neonates in northern Taiwan using DBS screened for Toxoplasma from March to December 2018, the seropositive rate of Toxoplasma IgG was 4.98%. In total, none of these seropositive infants had increased the titer of IgG and changed to positive titer of IgM during regular follow-up. Among the seropositive cases, one of these participants' mother was seropositive for both IgG and IgM and a subsequent IgG avidity test showed high avidity index for IgG antibodies which indicated that the mother got new infection during early pregnancy.

Conclusion Congenital toxoplasmosis has negative impact on not only neurological outcome of the infected newborns but also on public health system. Newborn screening of Toxoplasma and regular follow-up will improve the neurodevelopmental outcomes due to early detection and treatment.

P113. Newborn Screening of Congenital Cytomegalovirus Infection in Northern Taiwan

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Background Cytomegalovirus (CMV) is the most common congenital infection in human. The incidences of congenital CMV infection–related progressive hearing loss and neurodevelopmental impairment are underestimated due to unrecognition of most infected newborns lacking of clinical manifestations at birth. This study aimed to early detection of congenital CMV infection and set up a follow-up protocol to investigate the incidences of neurological sequelae.

Methods Dried blood spots (DBS) were screened for human CMV-specific IgM. The presence of DNA fragments of CMV in dried saliva swabs was detected using qPCR. Swabs were collected at least 1 hour after breast milk feeding. Newborns with any of positive results were referred to confirm using urine CMV PCR or cultures. The confirmed newborns were suggested for follow-up of auditory function and neurodevelopment evaluation for 3 years.

Results of the 723 newborns in northern Taiwan from March to December 2018, six has positive results. There were 83 cases born prematurely and three of them had positive results. of positive cases, five newborns was reconfirmed congenital CMV infection. The incidence of congenital CMV infection is 0.7%. All these cases passed their hearing screening exams. Until Dec. 2018, four confirmed cases had complete their follow-up exams at the age of 6 months old. Two infants still had positive results of urine CMV culture and no case had the diagnosis of hearing defect or neurodevelopment impairment.

Conclusion Saliva qPCR is a feasible approach for screening of congenital CMV infection. We expect that a follow-up protocol could provide the epidemiology data of late-onset neurological sequelae in children with asymptomatic CMV infection. Furthermore, early detection and intervention may improve the outcomes of these children.

P114. Screening of Inborn Genetic Disorders X-ALD, ADA-SCID, ASA-LD and OTCD with Specific New Analytes Included in the NeoBase™ 2 Non-Derivatized MSMS Kit

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