Background Cytomegalovirus infection early in pregnancy results in major disabilities, including cerebral palsy and sensorineural hearing loss (SNHL). Cerebral abnormalities detected using cranial ultrasound (cUS) and magnetic resonance imaging (MRI) have been related to neurological sequelae.

Objectives To evaluate additional value of MRI and assess relationship between time of infection during pregnancy and outcome in infants with congenital cytomegalovirus (cCMV) infection.

Patients and methods Demographic and clinical data were collected in infants with cCMV infection (1992–2013). Time of onset of infection during pregnancy, neuro-imaging results and outcome were reviewed. Cerebral abnormalities were categorised into none, mild (lenticulostriate vasculopathy (LSV), germinolytic cyst, high signal intensity T2 weighted images) and severe (migrational disorder, ventriculomegaly, cerebellar hypoplasia). Fisher exact test was used for statistical analysis.

Results Thirty-five infants were eligible for analysis. cUS was performed in all and MRI in 19 infants. cUS was superior for diagnosing LSV (p < 0.01) and MRI for diagnosing migrational disorders (p < 0.01).

In 17 infants time of onset of infection during pregnancy was ascertained. Eight of ten infants infected during first trimester had severe cerebral abnormalities and adverse sequelae, two had no or mild cerebral abnormalities and normal outcome. Two of three infants infected during second trimester had normal outcome and one developed SNHL. All four infants infected during third trimester had normal outcome.

Conclusion Infants with first trimester cCMV infection are at risk of severe cerebral abnormalities and neurological sequelae. MRI provides additional information for presence of migrational disorders, essential for early prediction of outcome.

PO-0557 NEURO-IMAGING IN INFANTS WITH CONGENITAL CYTOMEGALOVIRUS INFECTION: RELATION WITH TIME OF ONSET OF INFECTION DURING PREGNANCY

Start of infection during pregnancy was related to outcome in 79 infants. Infants with first trimester cCMV infection were at risk of severe cerebral abnormalities and adverse sequelae. Two infants infected in second trimester had normal outcome.

Conclusion Infants with first trimester cCMV infection are at risk of severe cerebral abnormalities and neurological sequelae. MRI provides additional information for presence of migrational disorders, essential for early prediction of outcome.