

**996. Predictors of Sensorineural Hearing Loss (SNHL) in Infants with Symptomatic Congenital CMV Infection**

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**Background.** Congenital CMV (cCMV) is the leading non-genetic cause of sensorineural hearing loss (SNHL) in the U.S. Approximately 40-60% of infants with symptomatic cCMV infection develop long term sequelae such as hearing loss. Currently, there are no identified predictors of hearing loss. The objective is to determine clinical predictors of SNHL in infants with symptomatic cCMV infection.

**Methods.** Findings from a longitudinal follow-up study of children with symptomatic cCMV at the University of Alabama (UAB) were analyzed. Infants were considered to have symptomatic cCMV infection if they were positive for CMV by saliva or urine rapid culture and had findings suggestive of congenital infection at birth. Infants with jaundice, petechiae, purpura, hepatosplenomegaly, elevated aspartate aminotransferase, thrombocytopenia and lacked CNS involvement were considered to have

transient symptoms. Infants with microcephaly, seizures, abnormal neurological examination, and abnormal neuroimaging findings with/without any of the transient symptoms were categorized as the group with CNS involvement. Incidence of SNHL was compared between the groups with transient symptoms, CNS involvement and only petechial rash.

**Results.** 176 infants with symptomatic cCMV infection were followed at UAB. CNS involvement and transient findings were found in 56% and 31% of infants, respectively while 13% of infants only had a petechial rash. Hearing outcome was available in 96% of study children. The overall incidence of hearing loss was found to be highest in the group with CNS involvement followed by those with transient findings and infants with only a petechial rash [59% (54/92) vs 39% (21/54) vs 22% (5/23) respectively;  $p = 0.0004$ ]. SNHL at birth was significantly more frequent in infants with CNS involvement compared to infants with transient findings or only petechial rash [42% (39/92) vs 24% (13/54) vs 13% (3/23) respectively;  $p = 0.0019$ ]. The incidence of late onset hearing loss was not significantly different between these groups ( $p = 0.08$ ).

**Conclusion.** Among infants with symptomatic cCMV infection, those with evidence of CNS involvement in the newborn period are at the greatest risk for SNHL overall and congenital hearing loss. However, findings in the newborn period are not predictive of late onset hearing loss.

**Disclosures.** All authors: No reported disclosures.