Objective
To assess the added benefit of prenatal MRI to imaging by ultrasound in predicting neonatal sequelae in fetal primary CMV infection.

Methods
Prenatal evaluation included both monthly detailed US scans and 3rd trimester fetal MRI scan at 30-34 weeks of gestation. Long term outcome was assessed using database search and a telephone interview. Outcome variables included termination of pregnancy (TOP), hearing abnormalities (SNHL), neurological disabilities (NDI) or composite outcome (all three).

Results
The study included 246 patients with both fetal sonographic and fetal brain MRI evaluation. The rate of fetuses with serial normal sonography was 85/123 (69%), 77/101 (76%) and 21/22 (95%) after 1st, 2nd and 3rd trimester infection respectively. After excluding patients with US finding, the rate of abnormal MRI findings was: 1st trimester – 12 (14%); five with anatomical anatomical abnormalities and seven with H/I signals (2-mild motor delay). 2nd trimester- 9 (11.7%); two with anatomical abnormalities and seven with H/I signals. 3rd trimester- 5 (23.8%) including one with anatomical abnormalities and four with H/I signals. When sonographic abnormalities were excluded, MRI findings were not associated with NDI, SNHL or composite outcome.

Conclusion
After exclusion of sonographic abnormalities, anatomical findings on MRI are not significantly associated with NDI, SNHL or composite outcome.