Non-invasive management of maternal cytomegalovirus infection during pregnancy.

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**Objectives**
Evaluation of the non-invasive follow-up by ultrasound and MRI of patients presenting with a cytomegalovirus (CMV) infection during pregnancy.

**Methods**
In a retrospective study from January 2011 to October 2018, 88 women with a history of primary CMV infection during pregnancy were reviewed. These patients were assessed by repeated detailed ultrasound (US) every 4 weeks and a fetal magnetic resonance imaging (MRI) at around 32 weeks. Amniocentesis was conducted to identify congenital infection only if imaging technic highlighted abnormal findings.

**Results**
Thirteen fetuses (14.8%) had a positive screening based on abnormal findings at US and/or MRI. Among these, two had a negative amniocentesis and were confirmed as postnatally non-infected. Seven medical abortions were performed. One women with abnormal MRI and US decided to continue the pregnancy. Congenital CMV was confirmed at birth with multi-systemic involvement. Two fetus had normal MRI but positive amniocentesis. Both babies was CMV infected at birth but one was asymptomatic while the other one had abnormal left otoacoustic emission (OAE). The last fetus had abnormal MRI but no amniocentesis. At birth, CMV was not detected in the urine. 75 of the 88 fetuses (85.2%) had a negative screening relying on both imaging technics. Among them, 19 children were diagnosed post-natally as congenital CMV infection. 2 children were symptomatic, of which one had abnormal right OAE, while the other child was diagnosed with a peripheral facial palsy.

**Conclusion**
Although this method seems to be a valid option to detect severe cases of congenital CMV infection, it has to be approved by a larger cohort of patients primo-infected with CMV and longer follow-up of newborns.