

Cytomegalovirus (CMV) Hyperimmune Globulin (HIG) in acute CMV infection during pregnancy: to use or not to use?

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Objectives : Intrauterine transmission of CMV occurs as a result of maternal infection both primary and recurrent (either reactivation of endogenous virus or reinfection with a new virus strain) and is the commonest cause of congenital hearing deficits. Screening of pregnant women for CMV infection is common practice in Europe and management of pregnant women with presumed acute CMV remains a challenge. During the last 5 years and in women who come with the question of abortion we treat acute CMV infection with hyperimmune globulin (HIG). Aim of the study was to evaluate the administration of CMV HIG in pregnant women with acute CMV infection in preventing transmission and serious congenital disease **Methods** : All pregnant women referred during the last 5 years to our referral center for infections in pregnancy with the question of acute CMV infection and pregnancy discontinuation were prospectively followed. CMV infection was considered acute if seroconversion, or low CMV IgG avidity titers, and/or positive PCR CMV DNA was documented in the pregnant woman. CMV HIG was offered (200 IU/Kg) and follow-up included U/S, amniocentesis for virus detection and MRI of the fetus if appropriate **Results** : Among 212 women referred, 102 had acute infection [mean age 31,7 years, mean pregnancy age 16.7 weeks (5-36)]. Ten elected not to receive treatment with HIG and 4 presented with already positive PCR CMV DNA in the amniotic fluid. Of the 88 treated, 24 (27%) transmitted vertically the virus (either as positive for CMV amniocentesis or positive for CMV newborn), which, for this number of subjects, is significantly lower compared to the 50% expected transmission rate historically ($p=0.003$) or the 44% recorded recently by Revello et al ($p=0.02$). Transmission did not differ significantly in early versus late pregnancy and with extremely low versus low IgG avidity titers. Of the 19 babies that were born positive for CMV and the 4 with intrauterine infection treated, all were born asymptomatic and continue in good health and development 6 months to 4 years after birth. No adverse effects were noted during the HIG administration. Only one preterm delivery in a high risk twin pregnancy in a 40 year woman was noted. **Conclusion** : The administration of CMV HIG during acute CMV infection during pregnancy leads to a reduction in the transmission possibility and most importantly may prevent unnecessary abortions and serious congenital CMV infection.