

## Correlation between transforming growth factor beta with habitual abortion in women infected with cytomegalovirus- Thamer Mutlag Jasim- Al Mustansiriya University

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Recurrent pregnancy loss (RPL) is the most frustrating and challenging field in reproductive medicine because the aetiology is often unknown and there are few evidence based diagnoses and treatment. The cytomegalovirus (CMV) has a ubiquitous DNA herpes virus, as with other herpes viruses, it becomes latent after primary infection but can reactivate with renewed viral shedding. The aim of the present study is to estimate the role of transforming growth factor beta 1 (TGFB1) to CMV immunoglobulin. The study was done in Kamal Al-Smarrai hospital in Baghdad, Iraq, from the period of October 2016 to February 2017. This study was performed on 88 pregnant women attended, 24 with unsuccessful abortion (two or more abortion) and 27 had single abortion and compared with 37 women with normal pregnancy were control, no recurrent abortion). Serum levels of TGF, IgG, IgM and IgG avidity for anti - CMV virus were measured in the serum. They used ELISA reader and electrochemiluminescence for CMV IgG avidity. There were no significant differences between the studied groups in their age, family history of abortion. Serum anti- CMV IgG was significantly higher in RPL and single abortion group compared to IgG TGFB1 in the studied groups. There was no significant difference in the median of IgG and IgM among different groups. There was no significant difference among different groups in their IgG avidity. There is inverse weak correlation between IgM and anti CMV IgG with TGF B1 in control group. There was no correlation between IgG IgM and IgG avidity with TGF B in recurrent abortion group. The current study showed a high proportion of pregnant women with past CMV infection. The

RPL, anti-CMV IgM and TGFB were correlated directly with RPL patient compared with healthy control.

### Recent Publications

1. Kolte A M, Van Oppenraaji R H Quenby S, et al. (2014) Non-visualized pregnancy losses are prognostically important for unexplained recurrent miscarriage. *Human Reproduction* 29(5):931-7.
2. Lucas E S, Dyer N P, Murakami K et al., (2016) Loss of endometrial plasticity in recurrent pregnancy loss. *Stem cells* 34(2):346-56.
3. Swanson Elizabeth C and Mark R Schless (2013) Congenital cytomegalovirus infection new prospect for prevention and therapy. *Pediatric Clinics of North America* 60(2):335-349.
4. Hyde T B, Schmid D S and Cannon M J (2010) Cytomegalovirus sero conversion rates and risk factors: Implication rates and risk factors: implications for congenital CMV. *Reviews in Medical Virology* 20:311-26.
5. Leuez-Ville M, Sellier Y, Salomon L J, et al., (2013) Prediction of fetal infection in cases with cytomegalovirus immunoglobulin M in the first trimester of pregnancy: a retrospective cohort. *Clinical Infectious Diseases* 56:1428.