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Comment on the Paper by Kamel et al. Entitled 'Primary Cytomegalovirus Infection in Pregnant Egyptian Women Confirmed by Cytomegalovirus IgG Avidity Testing'

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Dear Editor,

The recent report by Kamel et al. [1] on primary cytomegalovirus infection in pregnant women is very interesting. The authors noted that 'women who were IgM positive had no primary CMV infection in the index pregnancy as evidenced by the high CMV IgG avidity testing' [1]. In fact, the usefulness of the IgG avidity test was previously reported by Seo et al. [2], who noted that this test 'enabled the identification of women who were at a low risk of

transmitting CMV infection and provided informative for subsequent pregnancy outcomes'. However, the diagnostic property of the IgG avidity test should be mentioned. The sensitivity of this test was reported to be only 85.7% [3]. Lumley et al. [4] also recently reported that 'women with positive IgM and low avidity IgG' might not present a primary CMV infection.

References

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Reply

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Dear Editor,

We would like to thank Prof. Viroj Wiwanitkit for his interest in our study [1]. Lazzarotto et al. [2] stated that: 'If determination of the anti-CMV antibody avidity is carried out early (before 18 weeks), it can identify all pregnant women who will transmit congenital CMV infection to their offspring. Moreover, if determination of avidity index is carried out later on during pregnancy, 60% of women who will transmit the infection still have antibody with low avidity, while the others will develop moderate or high avidity.'

We could not find the English version of the relatively old report from Lafarga et al. [3], and the method used for the IgG avidity analysis was not clarified. In recent years, many new fully automated assays with high sensitivities and specificities have been developed by different manufacturers; for example, Abbott uses a chemiluminescent microparticle immunoassay (CMIA) performed on the ARCHITECT [4], BioMérieux uses an enzyme-linked fluorescent assay (ELFA) performed on the VIDAS, and

DiaSorin uses a chemiluminescence immunoassay (CLIA) performed on the LIAISON analyzer.

In our study, we used the VIDAS CMV-IgG avidity assay. In a recent report by Vauloup-Fellous et al. [5], they suggested 'new VIDAS cut-off values of 0.40 for low avidity and 0.65 for high avidity, which significantly increase the test performance and enable better patient managements'. Also, they 'demonstrated that the VIDAS CMV-IgG avidity assay allows observing correctly the maturation of CMV-IgG avidity, which could be useful as an additional parameter for diagnosis of a recent CMV infection'.

Lumley et al. [6] recently reported that pregnant women with positive IgM and low/equivocal avidity testing on the Abbott ARCHITECT and DiaSorin LIAISON assays persisted over 18 weeks and therefore they may not have had primary infections. They suggested that a larger series of patients should be examined to determine how frequently this phenomenon occurs.

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