

Re: “Assessing the Detection of Middle East Respiratory Syndrome Coronavirus IgG in Suspected and Proven Cases of Middle East Respiratory Syndrome Coronavirus Infection”
by Alhethel et al. (Viral Immunol 2017 [Epub ahead of print];
DOI: 10.1089/vim.2017.0091)

Sora Yasri¹ and Viroj Wiwanitkit^{2,3}

To the Editor:

WE READ THE ARTICLE on “Detection of Middle East Respiratory Syndrome Coronavirus (MERS-CoV) IgG” with great interest (1). Alhethel *et al.* concluded that *MERS-CoV-IgG testing may not be suitable for diagnosing acute infection or estimating its prevalence during an outbreak* (1). We agree that the serological investigation for MERS-CoV might have some problems in diagnosis. Nevertheless, it is still used in some countries due to the less expensive cost comparing with molecular assay. The good example is the use for surveillance in Korea (2). Focusing on the false negative result in the report by Alhethel *et al.*, the possible cause might be due to several reasons. First, in very early infection, the main immunological response should be IgM, not IgG. Hence, the use of MERS-CoV-IgG test might result in false negative. Second, in case that there is an excessive immunological response to the infection, the prozone effect is possible and this can result in false negative. To manage possible prozone effect by dilution, preparation or EDTA treatment (3) might help improve the diagnostic property of MERS-CoV-IgG test.

References

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2. Kim CJ, Choi WS, Jung Y, *et al.* Surveillance of the Middle East respiratory syndrome (MERS) coronavirus (CoV) infection in healthcare workers after contact with confirmed MERS patients: incidence and risk factors of MERS-CoV seropositivity. *Clin Microbiol Infect* 2016;22: 880–886.
3. Wang J, Meade JR, Brown NK, *et al.* EDTA is superior to DTT treatment for overcoming the prozone effect in HLA antibody testing. *HLA* 2017;89:82–89.

Address correspondence to:
Dr. Sora Yasri
KMT Primary Care Center
15 Rama 2 Road
Bangkok 10150
Thailand

E-mail: sorayasri@outlook.co.th

¹KMT Primary Care Center, Bangkok, Thailand.

²Department of Tropical Medicine, Hainan Medical University, Haikou, China.

³Department of Community Medicine, Dr. DY Patil University, Navi Mumbai, India.