

## Correspondence

To the Editors

# Post COVID-19 vaccination, increased blood viscosity and impact on laboratory investigation results

*Sri Lanka Journal of Child Health*, 2021; **50**(4): 747

DOI: <http://doi.org/10.4038/sljch.v50i4.9908>

(Key words: Post Covid-19 vaccination, Increased blood viscosity, Laboratory investigation results)

Dear Editors,

COVID-19 vaccine is a new vaccine for controlling the pandemic. The vaccine is already recommended for teenage children. After vaccination, the human body will create protective SARS-CoV-2 antibodies and result in active protective immunity. After a COVID vaccination, there will be increased blood viscosity due to increased immunoglobulin level<sup>1</sup>. An interesting concern is on the impact of vaccination on the diagnostic laboratory.

There is no doubt that the vaccine can change the way for using a SARS-CoV-2 serological test result interpretation. Moreover, it might also result in an unusual aberration of clinical chemistry laboratory results. For example, thyroid function test which is a common test for diagnosis of thyroid disorders in paediatric endocrinology might be changed after COVID-19 vaccination. This is explainable by the effect of blood viscosity change after vaccination. The high viscosity can result in false high blood thyroid hormone result<sup>2</sup>. Some recent reports on post vaccination Graves' disease appearance<sup>3</sup> might be explained by the false positivity in laboratory investigation. This is an important consideration in interpretation of laboratory results in the period that paediatric COVID-19 vaccination is widely used. It is necessary to have a re-check for a possible false positive result before making management decisions.

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The author declares that there are no conflicts of interest.

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