# Cardiology in the Young

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# Down syndrome, cardiac defect, embolisation, and COVID-19 vaccination: correspondence

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Dear Editor, we would like to discuss on the publication "Concomitant pulmonary and neurological embolisation in a Down patient after SARS-CoV-2 vaccine: what is missing?<sup>1</sup>" Di Molfetta et al. mentioned that "Down patients affected by CHD are more prone to develop pulmonary vasculopathy than non-syndromic patients" and discuses on interrelationship with COVID-19 vaccination. The change of blood viscosity and alteration of coagulation system is a possible pathological process following COVID-19 vaccination.<sup>2</sup> The patient with underlying heart problem might have a risk for developing thrombotic disorder. However, it should recognise that there is also a possibility of concurrent medical problem that might lead to embolisation. For example, dengue might concomitantly occur in a COVID-19 vaccine recipient<sup>3</sup> and might trigger embolisation.<sup>4</sup> Finally, it should discuss on the safety of the COVID-19 vaccine in a patient with underlying cardiac septal defect or vulvular disease. The structural defect in heart might interrupt flow of blood and might trigger thrombotic problem. Nevertheless, the recent report showed that there is no problem on safety of vaccination for patients with underlying rheumatic heart problem.<sup>5</sup>

Conflicts of interest. None.

#### **Authors contributions.**

RM 50%:

- 1a. Substantial contributions to study conception and design.
- 1b. Substantial contributions to acquisition of data.
- 1c. Substantial contributions to analysis and interpretation of data.
- $2. \ Drafting \ the \ article \ or \ revising \ it \ critically \ for \ important \ intellectual \ content.$
- 3. Final approval of the version of the article to be published.

VW 50%:

- 1a. Substantial contributions to study conception and design.
- 1b. Substantial contributions to acquisition of data.
- 1c. Substantial contributions to analysis and interpretation of data.
- 2. Drafting the article or revising it critically for important intellectual content.
- 3. Final approval of the version of the article to be published.

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Received: 25 January 2022 Accepted: 5 February 2022 First published online: 2 May 2022

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**Letter to the Editor** 

Cite this article: Mungmunpuntipantip R and

Wiwanitkit V (2022) Down syndrome, cardiac

vaccination: correspondence. Cardiology in the

#### Author for correspondence:

Young 32: 853. doi: 10.1017/

S1047951122000622

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