LETTERS TO THE EDITOR

To the Editor—COVID-19 vaccination and torsades de pointes

We read the publication on "Torsades de Pointes Following Vaccination for COVID-19."[1] Abrich and Olshansky reported the case and discussed the interrelationship. We agree that the COVID-19 vaccine has the potential to induce side effects, such as irregular heart rhythm. The current case may or may not indicate an adverse reaction to the COVID-19 vaccination. It's impossible to draw any conclusions because there's no information on prevaccination health or cardiac rhythm. There's a potential that a background personal disease or a concurrent medical problem will cause cardiac rhythm problems. For example, a COVID-19 vaccination recipient may have a concomitant dengue infection,[2] and in some dengue instances, torsades de pointes may occur.[3] It is crucial to rule out other probable etiologies for any cardiac problem following COVID-19 vaccination.

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Author's Reply—COVID-19 vaccination and torsades de pointes

We appreciate the comments Drs Mungmunpuntipantip and Wiwanitkit have regarding our case report "Torsades de Pointes Following Vaccination for COVID-19."[1] While we agree that it is impossible to draw definitive conclusions regarding causality of the ventricular arrhythmia seen in our patient, our report raises concerns about the COVID-19 vaccinations she received. She was otherwise healthy and asymptomatic until she developed syncope 1 month after the second vaccination and suffered a cardiac arrest within 12 hours after receiving the booster. While the close temporal relationship of events is not proof of causality, no other explanatory mechanism was evident. The fact that this is the first reported case suggests that this is a rare occurrence. Indeed, she may have had some other clinical risk factor that could have contributed to her cardiac arrest. While we are fully cognizant of the foibles of *post hoc ergo propter hoc* thinking related to clinical assessment and management,[2] the same type of thinking has even been used in assessing the cause of death in dengue fever.[3] Dengue infection was unlikely in our patient since she had no history of travel to an endemic area, nor did she have any signs or symptoms such as a fever, myalgias, rash, or thrombocytopenia.[4] Diagnostic imaging for myocarditis would have completed our patient's cardiac evaluation, although a negative result would not have altered management nor would have proven the vaccine was unrelated to what happened to her.

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