

Dengue After COVID-19 Vaccination: Possible and Might be Missed

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Amnuay Kebayoon¹  and Viroj Wiwanitkit^{2,3}

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Dear Editor, COVID-19 vaccination is recommended as a primary prevention of COVID-19. Data on safety and adverse effect of the new COVID-19 vaccine is very important. Of several adverse effects, thrombocytopenia might occur in some vaccine recipients and immunopathological mechanism is proposed.¹ A vaccine recipient who has vaccine-induced thrombocytopenia might have petechiae and hemorrhagic problem. Nevertheless, there might be other medical problem that leads to thrombocytopenia in a COVID-19 vaccine recipient.

A 38 years old female presented to the physician 2 days after receiving a viral vector COVID-19 vaccine. She developed myalgia, fever and skin rash and visited to a medical center. Her vital signs were as the followings: body temperature 38.5°C, blood pressure 120/80 mm Hg, pulse rate 85/min and respiratory rate 16/min. The diagnostic workup showed decreased platelet count ($80 \times 10^3/\mu\text{L}$). This case was firstly suspicious for a possible vaccine adverse reaction. Nevertheless, there is no coagulation profile abnormality. Since the setting is a tropical country that viral hemorrhagic disease is common, further investigation for viral hemorrhagic disease was performed. Further laboratory tests confirm that there is a positive result of dengue virus infection (Dengue NS1Ag + ve). The final diagnosis in this case is dengue. The patient receipt standard fluid replacement therapy. All of her clinical problems, including skin rash, disappeared within 1 week.

This is a case of dengue hemorrhagic fever that occurs in a patient who has just received COVID-19 vaccination for 2 days. It is a possible condition that might occur in any tropical country during the current worldwide mass vaccination. It is necessary to recognize an endemic hemorrhagic fever that might cause thrombocytopenia in a COVID-19 vaccine recipient. This clinical problem might be missed diagnosed as an

adverse event of vaccine. A coincidence of fever following COVID-19 vaccine and endemic tropical disease is a possible emerging problem in the present day. The present case is a good example and practitioner should aware of this scenario when dealing with post-vaccination thrombocytopenia problem.

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ORCID iD

Amnuay Kebayoon  <https://orcid.org/0000-0002-1976-2393>

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¹ Private Academic Consultant, Samraong, Cambodia

² Joseph Ayobaalola University, Ikeji-Arakeji, Nigeria

³ Dr DY Patil University, Pune, India

Corresponding Author:

Amnuay Kebayoon, Private Academic Consultant, Samraong, Cambodia.
Email: amnuaykeebai@gmail.com



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