Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

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Letter to the editor

COVID-19 vaccine, immune thrombotic thrombocytopenia, jaundice, hyperviscosity: concern on cases with underlying liver problem

We would like to share ideas on the report "COVID-19 vaccine-induced immune thrombotic thrombocytopenia: An emerging cause of splanchnic vein thrombosis [1]." Aguilar et al. concluded that *"We will definitively continue to be updated and "tuned-up" while further research in critical areas like etiopathogenesis and emerging therapies for VITT unfolds in this new fascinating but poorly understood arena of clinical thrombosis.....[1]."* The adverse effect of COVID-19 vaccine is the present focus at present. The thrombohemostatic disturbance might occur. As noted in the editorial, there are many possible pathomechanisms [1]. We would like to add another possible underlying cause of thrombohemostatic disorder, the vaccine-induced hyperviscosity [2]. The rapid increase of immunity after vaccination might occur, and high blood viscosity can alter the normal thromohemostasis process [3]. The problem might arise in anyone receiving the vaccination. For the patient with underlying liver disease, a more risk might be expected.

Of several underlying pathophysiology, many patients with underlying liver disease usually have a high blood bilirubin level. Since hyperbilirubinemia is associated with increased blood viscosity, a patient with underlying liver disease and jaundice, such as cholangiocarcinoma or chronic active hepatitis, might have an increased chance of post COVID-19 vaccination hyperviscosity and thrombohemostatic disorder. Closed monitoring of the possible adverse effect of COVID-19 among a person with underlying jaundice should be required.

Conflict of interest

None

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