Durvalumab/elasomeran

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Immune thrombocytopenia: case report

A 75-year-old woman developed immune thrombocytopenia (ITP) following administration of COVID-19 vaccine elasomeran and chemotherapy durvalumab [*routes and dosages not stated; not all durations of treatments to reactions onsets stated*].

The woman visited to the emergency department with haemoptysis. She had been received elasomeran [Moderna COVID-19 vaccine] 3 days prior to the onset. Her medical history included refractory lung adenocarcinoma, and she had been receiving durvalumab for 2 months. She received her last cycle of durvalumab 4 days prior to the vaccination with normal platelet count. She denied any heparin exposure or haematologic disorders. At the current presentation, pulse rate was 77 beats per minute, oxygen saturation was 98% on room air, body temperature was 37°C and blood pressure was 162/72mm Hg. Further physical examination showed no petechiae or ecchymoses. She underwent laboratory investigation, which revealed markedly reduced platelet count (7×10^3 /μL). A peripheral blood smear revealed no platelet clumping or morphological abnormalities. The coagulation profile showed mildly elevated fibrinogen levels (389.6 mg/dL) with normal prothrombin time and activated partial thromboplastin time. The haemolytic profile was unremarkable. Reverse transcriptase-polymerase chain reaction (RT-PCR) for COVID-19 was negative. A tentative diagnosis of ITP was considered.

The woman was treated with 12 units of platelets along with prednisolone. Subsequent serological tests for cytomegalovirus, Epstein-Barr virus, hepatitis C virus, and human immunodeficiency virus were negative, except that the hepatitis B virus profile was compatible with a previous infection. In addition, blood tests for antinuclear antibodies, complement proteins, rheumatoid factor, lupus anticoagulant, and anti-β2-glycoprotein were negative. On fourth day, her haemoptysis subsided with increased in platelet count to 173×10^3 /μL, and on the next day she was discharged home on prednisolone therapy. At follow up visit her platelet count remained stationary. Thereafter, durvalumab was switched to navelbine chemotherapy. A second dose of the Moderna vaccine was not suggested because of her previous experience of severe thrombocytopenia. It was noted that she had ITP secondary to COVID-19 vaccine elasomeran and durvalumab.

Chong KM, et al. Severe immune thrombocytopenia following COVID-19 vaccination (Moderna) and immune checkpoint inhibitor. American Journal of Emergency Medicine 56: 1-3, Jun 2022. Available from: URL: http://doi.org/10.1016/j.ajem.2022.03.030

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