## Elasomeran/tozinameran

## Severe immune thrombocytopenia: 2 case reports

In a case report, 2 patients [69-year-old man and 34-year-old woman] were described, who developed severe immune thrombocytopenia following administration of elasomeran or tozinameran for immunization against COVID-19 [routes and dosages not stated].

Case 1: The 69-year-old man, who had a history of postoperative intestinal obstruction, hypopharyngeal cancer and construction of a permanent tracheal fistula, received his first dose of the tozinameran [Pfizer-BioNTech COVID-19] vaccination for immunization against COVID-19. Following 3 days of vaccination, he presented for a routine evaluation of his intestinal obstruction. A complete blood count showed a platelet count of  $72 \times 10^9$ /L. After 3 weeks of the first dose, he received the second dose of the vaccine. After 10 days of his second dose, he presented with oral bleeding and haemoptysis. He was on several medications, however no new drugs had been recently added. A physical examination showed oral bleeding and severe purpura. He had a platelet count of  $6 \times 10^9$ /L, WBC count 6 700/µL and haemoglobin level 16.1g/dL consistent with severe immune thrombocytopenia. He also had positive results for helicobacter pylori antibody. His severe immune thrombocytopenia was treated with prednisolone. After 3 days of prednisolone treatment, his platelet count was  $100 \times 10^9$ /L. Thereafter, he was treated for helicobacter pylori eradication. He continued prednisolone for 14 days and the dose of prednisolone was tapered subsequently. Severe immune thrombocytopenia was attributed to tozinameran.

Case 2: The 34-year-old woman presented to the hospital with generalised purpura. She had received her second dose of elasomeran [Moderna COVID-19 vaccine], 3 weeks before the symptom onset. She had been using oral contraceptive pills for dysmenorrhea. She had severe purpura without any thrombotic symptoms. Her platelet count was  $11 \times 10^9$ /L. As her platelet count had been only slightly elevated and her symptoms improved in four days, she did not receive any treatment. However, at the 1 week follow-up visit, she reported irregular vaginal bleeding. Her platelet count was  $3 \times 109$ /L, WBC count was  $7900/\mu$ L and haemoglobin level was 13.9 g/dL consistent with severe immune thrombocytopenia. She was treated with prednisolone. After treatment, her platelet count increased. However, when the dose of prednisolone was tapered, the platelet count decreased. Hence, she was treated with eltrombopag which led to increase in her platelet count. Severe immune thrombocytopenia was attributed to elasomeran.

Shonai T, et al. Severe Immune Thrombocytopenia after COVID-19 Vaccination: Two Case Reports and a Literature Review. [Review]. Internal Medicine 61: 1581-1585, No. 10, 2022. Available from: URL: http://doi.org/10.2169/internalmedicine.9177-21 803671016