Elasomeran/heparin

S

Vaccine-related thrombosis and thrombocytopenia syndrome and lack of efficacy: case report

A 56-year-old woman developed vaccine-related thrombosis and thrombocytopenia (VA-TTS) following vaccination with elasomeran for COVID-19. Additionally, she exhibited lack of efficacy to heparin for the treatment of VA-TTS [*dose and routes not stated*].

The woman who was obese and postmenopausal presented with fluctuating sensorium and left-sided weakness. She had fluctuating sudden onset of confusion. During current presentation, she had sensory symptoms with a 'funny' feeling in her left arm while opening the door by her left hand. She had a medical history of hyperlipidaemia and hypothyroidism for which she received atorvastatin and levothyroxine sodium [levothyroxine]. She had received two doses of elasomeran [mRNA-1273] vaccine for COVID-19, first dose 12 weeks prior and second dose 8 weeks prior to the presentation. During current presentation, she was restless, confused and non-communicative with extremity weakness. She was intubated in ED for airway protection. CT scan of the head revealed scattered hemorrhages and infarcts in both left and right cerebral hemispheres. She was monitored in the ICU. Laboratory investigations revealed low platelet count and potassium level; elevated D-dimer and C-reactive protein. She tested negative for COVID-19 infection, she had an adequate immune response to the vaccine and her remaining haematological, thyroid, lipid and liver function levels were normal. She underwent brain MRI with venogram (MRV) and angiogram (MRA) which revealed infarcts in watershed areas with 'signal void' in superior sagittal and inferior sagittal sinuses, left transverse sinus, left sigmoid sinus, and left internal jugular along with foci of haemorrhages. MRV confirmed cerebral venous sinus thrombosis (CVST), malignant process, hypercoagulable state and TTS was considered to be most probable cause. Her anti-nuclear antibodies were reported as positive in nucleolar pattern at low titers. She met CDC criteria for tier-1 case definition of TTS. She had an episode of seizure treated with levetiracetam.

The woman was treated with heparin [unfractionated heparin] infusions. Despite treatment with heparin, her clinical condition continued to worsen, and she was referred for emergent endovascular mechanical thrombectomy. Subsequently, her venous blood flow was restored, her condition improved and she was extubated. Thereafter, she was moved out of the ICU. During four month follow-up, she had remarkable recovery. She received coumadin with INR monitoring.

Gurjar H, et al. A Rare Case of Coronavirus Disease 2019 Vaccine-Associated Cerebral Venous Sinus Thrombosis Treated with Mechanical Thrombectomy. American Journal of Case Reports 23: 19 Feb 2022. Available from: URL: http://doi.org/10.12659/AJCR.935355