120. Rabies Vaccine Induced Kounis Syndrome

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Body

A 56-year-old male, being in good health state previously, went to the local clinic with diarrhea, skin rashes and apathy, whose symptoms had begun shortly after receiving a rabies vaccine due to cat scratch. He was then transferred to our facility because of abnormal surface electrocardiogram and elevated serum cardiac markers for more evaluation for possible intervention through cardiac catheterization. On presentation, the patient was hemodynamically unstable with blood pressure 76/40mmHg, and continued to have skin rashes. His initial and repeated electrocardiograms demonstrated ST segment elevation in lead aVR and reciprocal changes in leads I, II, III, aVF, V2-6, which indicates severe coronary problems. Adding to elevated serum cardiac markers, myocardial infarction was suspected, even without typical chest pain. The patient was given 300 mg aspirin and 180mg ticagrelor before the coronary angiography, plus dopamine to keep his blood pressure steady. However, the left and right selective coronary angiography was normal. The patient was taken to the coronary care unit. His electrocardiogram returned to normal within 10 hours after rabies vaccine injection. Complete blood count showed leukocytosis with 17.52*109/L which increased to its peak 21.53*109/L within 12 hours and increased eosinophils (0.73*109/L) on admission. Peak troponin-T level was 0.450ng/mL (reference esteem: 0.014ng/mL) and peak creatine kinase-MB fraction was 120.7U/L (reference esteem: 25U/L), individually. Plasma potassium was 3.10mmol/L. D-dimer was 18.07mg/L reference esteem: 0-0.55mg/L), which restored to normal within 24 hours. Hepatic, blood urea nitrogen, and creatine findings were normal. Transthoracic echocardiography was performed the following day showing no evidence of ischemia or scar and there were no regional wall motion abnormalities detected. We suspected the course was an allergic reaction without knowing the exact prime culprit. The patient was treated with dexamethasone, nitroglycerin, and aspirin, and was discharged home in a stable condition several days later. However, on the 15th day after discharge, the event recurred shortly after the patient had received his second rabies vaccine. He recovered with dexamethasone and aspirin. Put it all together and the probable deduction of the events was this: there was an allergic reaction going on shortly after rabies vaccine injection, and diarrhea, skin rashes and apathy emerged. Coronary vasospasm secondary to allergic reaction which in turn induced abnormal electrocardiogram and elevated serum cardiac markers. And the whole process meets the definition of the Kounis syndrome.