AZD-1222/tozinameran

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Haemophagocytic-lymphohistiocytosis: 2 case reports

In a case series, a 20-year-old man and a 71-year-old woman developed haemophagocytic lymphohistiocytosis (HLH) following administration of tozinameran or AZD-1222 for COVID-19 vaccination [routes and dosages not stated].

The 20-year-old man (patient 1 of the article) was transferred from a military hospital to an another hospital in South Korea on June 2021, due to uncontrolled high fever above 39◦C and unstable BP with tachycardia. On hospital admission, his general condition was poor. He experienced sever drowsiness and myalgia. Two days before admission, he received tozinameran [BNT162b2; manufactured by Pfizer-BioNTech], after which he developed skin rash, high fever, myalgia and nausea. On admission, blood test showed abnormal liver function, neutropenia and thrombocytopenia. The CT-scan showed multiple enlarged, bilateral lymph nodes (LNs) in the neck, axillar and supraclavicular area with splenomegaly. The PET/CT scan showed increased fluorodeoxyglucose (FDG) uptake of neck LNs. He underwent left supraclavicular LN excisional biopsy and subsequent evaluation was consistent with HLH. For HLH treatment, he started receiving dexamethasone. Consequently, his fever subsided and he was discharged in a good condition. His steroid treatment was tapered on an outpatient basis. The follow-up CT-scan showed improved splenomegaly and lymphadenopathy. The occurrence of HLH was attributed to COVID-19 vaccination.

The 71-year-old woman (patient 2 of the article) presented with high fever and bilateral axillar masses, after which she was transferred to a nearby hospital. One week before admission, she received AZD-1222 [ChAdOx1nCov-19; manufactured by AstraZeneca] for COVID-19 vaccination. Her medical history included hypertension. On hospital admission, her general condition was very poor and vital signs were unstable with hypotension, tachycardia and high fever. She also presented with neurological symptoms including severe motor weakness and slurred speech. She unable to ambulate and perform self-care. On admission, blood test showed thrombocytopenia, neutropenia and increased ferritin. The CT-scan multiple enlarged LNs in both axilar with splenomegaly, and significantly increased FDG uptake of the right axillar LN and spleen. Right axillar LN excisional biopsy showed inflammation. Her overall test results were compatible with HLH. The occurrence of HLH was attributed to COVID-19 vaccination. She received dexamethasone and etoposide in view of multiorgan failure. During the treatment, she developed massive left saphenous vein thrombosis, which prompted initiation of apixaban. At 8 weeks after HLH treatment initiation, she was able to ambulate and wanted outpatient clinic-based treatment. After discharge, she received only steroids. Her steroid treatment was tapered every week. She remained in a good condition without any relapse.

Baek DW, et al. Patients presenting high fever with lymphadenopathy after COVID-19 vaccination were diagnosed with hemophagocytic lymphohistiocytosis. Infectious Diseases 54: 303-307, No. 4, Jan 2022. Available from: URL: http://www.tandfonline.com/loi/infd20#.VrgcOLdf1Fo

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