Tozinameran

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Multiple evanescent white dots syndrome: case report

A 17-year-old girl developed multiple evanescent white dots syndrome (MEWDS) after receiving tozinameran vaccine for immunisation against COVID-19.

The girl presented with headache, fever and visual loss (both eyes). She had history of migraine. On 30 March 2021, she developed fever for 3 days. At that time, she was negative for SARS-CoV-2. After 2 weeks, she received the first dose of tozinameran vaccine [Pfizer SARS-CoV-2 vaccine; *dosage and route not stated*]. After 2 days, she developed severe headaches, which were initially intermittent and then persistent. SARS-CoV-2 test was negative again. Approximately 3 weeks later (at a visit an optometrist), her 20/20 (both eyes) with correction and extraocular movements were full. The slit lamp examination was normal. She reported no viral prodromal symptoms or skin rash. Ophthalmoscopy demonstrated bilateral optic disc oedema, multifocal, deep and well-circumscribed chorioretinal white lesions in the periphery of both eyes and peripapillary haemorrhage. On admission, ESR was 30 mm/hour. Serum herpes simplex virus 1/2 IgM was 1.07IV. Tests including blood culture, Rickettsia typhi antibody, Cryptococcal antibody, Syphilis antibody, Borrelia burgdorferi antibody, ANA, ANCA, CRP, rheumatoid factor, HIV antibodies and neuromyelitis optica (NMO) marker aquaporin-4 IgG. MRI of the orbits and brain with contrast demonstrated minimal papilloedema but was otherwise normal. Lumbar puncture demonstrated elevated opening pressure of 55cm H_2O and elevated CSF WBC of 48 cells/µL. CSF protein was 23 mg/dL and CSF glucose was 56 mg/dL. CSF cytomegalovirus CMV PCR was positive, but she had no clinical evidence for systemic and ocular CMV. She was seen by neurologist, during which differential diagnoses included idiopathic intracranial hypertension and meningitis. There were no previous fundus examinations to help in determining whether the papilloedema was chronic. Fluorescein angiogram demonstrated wreath-like choroidal hyperfluorescence of the posterior pole in both eyes, mild leakage from the disc in the left eye and severe leakage from the disc in the right eye. Optical coherence tomography demonstrated optic nerve oedema in both eyes.

The girl was treated with valaciclovir [valacyclovir] for 10 days and acetazolamide for 30 days. At 1 month follow-up, examination demonstrated visual acuity of 20/20 and resolution of peripapillary flame haemorrhage and optic disc oedema. Optical coherence tomography demonstrated resolution of the optic nerve oedema in both eyes. A final diagnosis was made of MEWDS with uveomeningeal syndrome and bilateral optic disc oedema. MEWDS was thought to be due to tozinameran vaccine [*time to reaction onset not stated*].

Wiley ZC, et al. Uveomeningeal syndrome presenting with bilateral optic disc edema and multiple evanescent white dots syndrome (MEWDS). American Journal of Ophthalmology Case Reports 26: 101538, Jun 2022. Available from: URL: http://doi.org/10.1016/j.ajoc.2022.101538 803676724