

## Tozinameran

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**Herpes simplex virus keratitis reactivation: 2 case reports**

In a report, a 42-year-old man and 29-year-old woman were described, who experienced herpes simplex virus keratitis reactivation following administration of tozinameran for protection against COVID-19 [dosage and routes not stated].

Case 1: A 42-year-old man had a recurrent herpetic kerato-uveitis of the right eye. He had previously experienced necrotising stromal keratitis attack complicated by corneal scarring and thinning. He was treated with acyclovir for 4 months prior to current presentation. At the current presentation, he was not taking any medications. It was noted that two days after receiving the first dose of tozinameran [COVID-19 Pfizer/BioNTech (BNT162B2)] vaccine, he started experiencing photophobia, drop in vision, periorbital headache and ocular pain, and presented to the emergency department two days after the onset of the symptoms. At current presentation, examination showed visual acuity 20/20 in the left eye and counting fingers near face in the right eye. Normal intraocular pressure was noted in the both eyes. Moderate conjunctival infection with new infiltrate of 1 × 2mm in the old scar was observed on slit lamp examination of the right eye. An area of stromal melting, descemetocoele and severe corneal thinning was detected in the centre of the new infiltrate. The anterior chamber was formed with trace cells, with no hypopyon. Additionally, normal fundus examination was performed. The left eye was normal. Initially, he was managed by emergency team, and a diagnosis of bacterial keratitis on top of an old herpetic scar was considered. Then, corneal scraping was done. Eventually, he was treated empirically with fortified topical vancomycin and ceftazidime. His infiltrate and the perforated cornea became worsen. Then PCR test was performed, and he was admitted to the hospital, and treatment with acyclovir and unspecified broad-spectrum fortified antibiotics was initiated. Over the next few days, his symptoms improved, and resolution of corneal infiltrate with leaving a scar was noted. The PCR test confirmed reactivation of herpes simplex type-1; However, it was negative for bacterial cultures.

Case 2: A 29-year-old woman with recurrent herpetic endotheliitis and an old overlying stromal scarring of the left eye, experienced last attack two years prior. She was treated with acyclovir and unspecified topical steroid drops. The treatment with acyclovir was completed 8 months prior to the current presentation. At the presentation, she was not taking any medication. It was noted that four weeks after receiving first dose of tozinameran [COVID-19 Pfizer/BioNTech (BNT162B2)] vaccine, she presented to the emergency room with symptoms of photophobia, pain, redness and blurring of vision of the left eye. After presentation, examination showed visual acuity 20/40 in the left eye and 20/20 in the right eye. Slit lamp examination of the right eye was normal. Corneal epithelial defect-associated central stromal oedema with underlying old and new keratic precipitate was detected in left eye. Then, PCR test was performed. The woman was treated with acyclovir, fluorometholone, acyclovir ointment and prophylactic moxifloxacin. Subsequently, her condition improved significantly, and the epithelial defect resolved. The PCR test confirmed reactivation of herpes simplex type-1. However, it was negative for bacterial cultures.

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