Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

Notes & comments

Response to "Varicella-zoster virus reactivation after SARS-CoV-2 BNT162b2 mRNA vaccination: Report of 5 cases"

To the Editor: We note with interest the recent case series of varicella-zoster virus (VZV) reactivation after SARS-CoV-2 BNT162b2 mRNA vaccination.[1] We add to this body of literature 2 cases of zoster postvaccination with unusual presentation: involving the glossopharyngeal and vagal nerves and L5 zoster with dissemination.

A 78-year–old Chinese man with a medical history of ischemic heart disease, hypertension, and glaucoma experienced throat pain, difficulty swallowing, and an aching sensation on the left mastoid process and left temporal scalp a week after the second dose of the Pfizer-BioNTech mRNA vaccine to his left deltoid. No skin lesions were present. Otolaryngologic endoscopy revealed erosions on the left pharynx and laryngeal surface of the epiglottis (Fig 1, *A* and *B*). He was diagnosed with zoster and prescribed analgesia and valacyclovir 1 g thrice a day for a week. Two days later, he developed vesicles on the left ear concha and mastoid process. After a week, the laryngopharyngeal and cutaneous lesions had healed, but he continued to experience postherpetic neuralgia symptoms, which persisted to date.

An 80-year–old Sikh woman with a history of hypertension, diabetes mellitus, obesity, left-breast cancer in remission, and well-controlled bullous pemphigoid not on immunosuppressive medications developed few blisters on the left lower back and thigh 19 days after the first dose of the Pfizer-BioNTech mRNA vaccine, which she also received on her left deltoid. She nevertheless proceeded to receive the second dose 21 days after her first dose. Upon dermatology review 4 days later, she had multiple tense vesicles and bullae on an erythematous base along the left L5 dermatome (Fig 2) in addition to scattered vesicles and erosions on the bilateral posterior aspect of the auricular regions and on the right side of the neck (Fig 3, *A*), forehead (Fig 3, *B*), and abdomen. A Tzanck smear revealed giant cells, and a VZV polymerase chain reaction test on blister fluid from the left lower aspect of the back and bilateral postauricular regions was positive. Herpes simplex virus polymerase chain reaction was negative. With

Fig 2. Clustered vesicles and blisters on an erythematous base on the left buttock along the L5 dermatome.

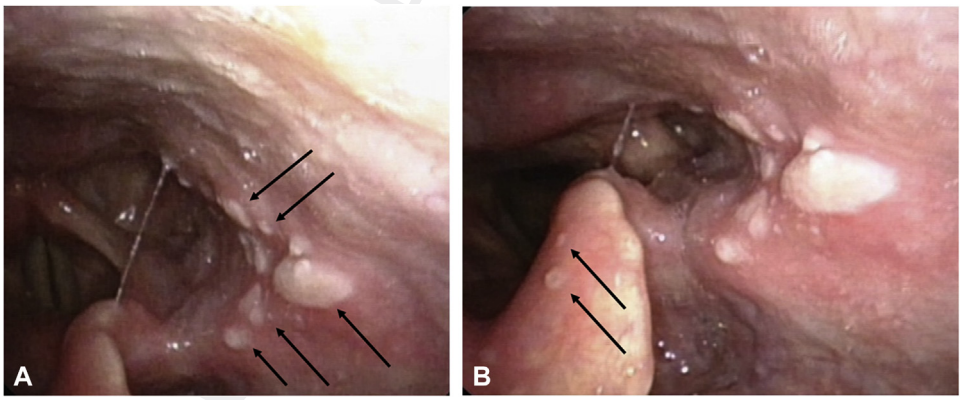

Fig 1. A, Nasoendoscopic photographs of erosions on the left lateral wall of the hypopharynx and lateral pharyngoepiglottic fold, and (**B**) ulcers on the laryngeal surface of the epiglottis.

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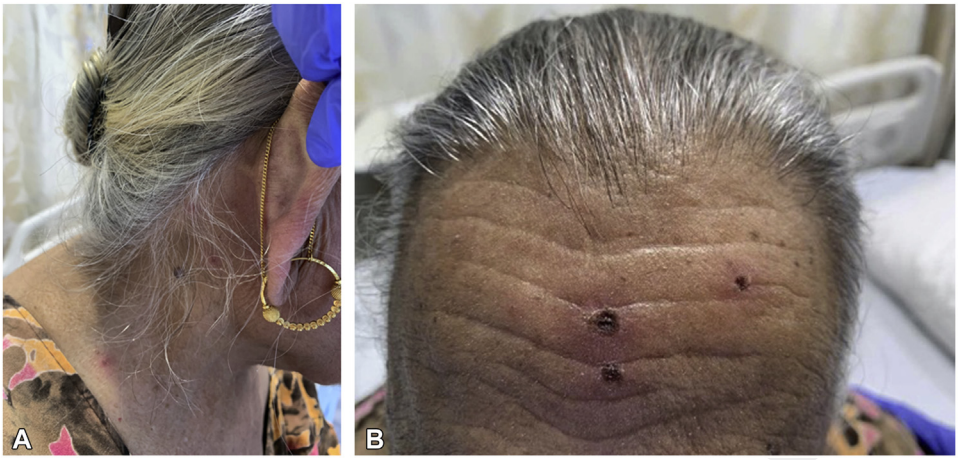

Fig 3. A, Few vesicles on an erythematous base on the right side of the neck. **B,** Erosions on the forehead, which arose from vesicles.

the diagnosis of disseminated zoster, she was admitted for intravenous acyclovir for 4 days before conversion to oral valacyclovir for the rest of 2 weeks' duration of therapy. She continues to experience postherpetic neuralgia several weeks after discharge with residual pain along the L5 dermatome.

In both cases, the temporal relationship between the Pfizer-BioNTech mRNA vaccination and development of zoster suggests a possible link between the 2 events. The initial presentation of the first case is unusual, and the diagnosis may have been easily missed. In the second case, the second dose of vaccine may have triggered the dissemination of the initially localized zoster.

There are several other reports of zoster associated with SARS CoV-2 vaccination, which may occur after either the first or second dose.[2-4] VZV reactivation has been reported in patients with active SARS-CoV-2 infections, possibly related to the coronavirus causing leukopenia and immune dysregulation.[5] Hence, we postulate that vaccine-induced immune dysregulation plays a role in the reactivation of latent VZV infection and in triggering the dissemination of initially localized VZV infection. Further pharmacovigilance and immunologic studies are needed to confirm and understand this possible association.

Although uncommon and thus far unproven, physicians should be attuned to the possible association of zoster with SARS-CoV-2 mRNA vaccination. Early recognition, treatment, and deferring a scheduled vaccination dose during active zoster may limit disease severity and complications.

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Conflicts of interest

None disclosed.

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