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Disseminated herpes zoster in an immune-competent patient after SARS-CoV-2 vaccine (BNT162b2 Comirnaty, Pfizer)

Editor

Disseminated herpes zoster is defined as a generalized eruption of more than 10–12 extra-dermatomal vesicles after the onset of classic dermatomal herpes zoster,[1] often can be indistinguishable from first-time varicella infection (chickenpox). Causes of its apparition may be found in constitutive or temporal alteration, especially in healthy hosts, in cellular immunity.[2]

Here, we present a case of a healthy patient who developed a disseminated varicelloid eruption following vaccination with the Pfizer/BioNTech mRNA vaccine.

This case affected a 65-year-old north-Italian man who accessed our dermatological emergency room, referring sudden and pruriginous multiple pimples all over his body.

He stated that the rash started a week after receiving the SARS-CoV-2 mRNA vaccine's third dose (Pfizer, Comirnaty BNT162b2). She did not report any additional symptoms.

The past medical history is silent, and he has not taken drugs in chronic nor in a discontinuous manner in the last 2 months.

We observed approximately over 100 papules, vesicles and crusts no wider than 2 mm in diameter all over the body, from scalp to hand and feet, sparing only palmoplantar and face surfaces (Fig. 1a and b).

Suspecting a varicella eruption, we executed an in-office Tzanck test, showing the presence of giant multi-nucleate cells in the smear.

Biopsy of the most representative shoulder lesion showed a well-defined acantholysis above a blister cavity. These acantholytic keratinocytes also showed numerous inclusions, margination of the nuclear chromatin and multinucleation, typical effects of viral affections.

To rule out a first-time varicella infection caused by the varicella-zoster virus (VZV), we asked permission to check the

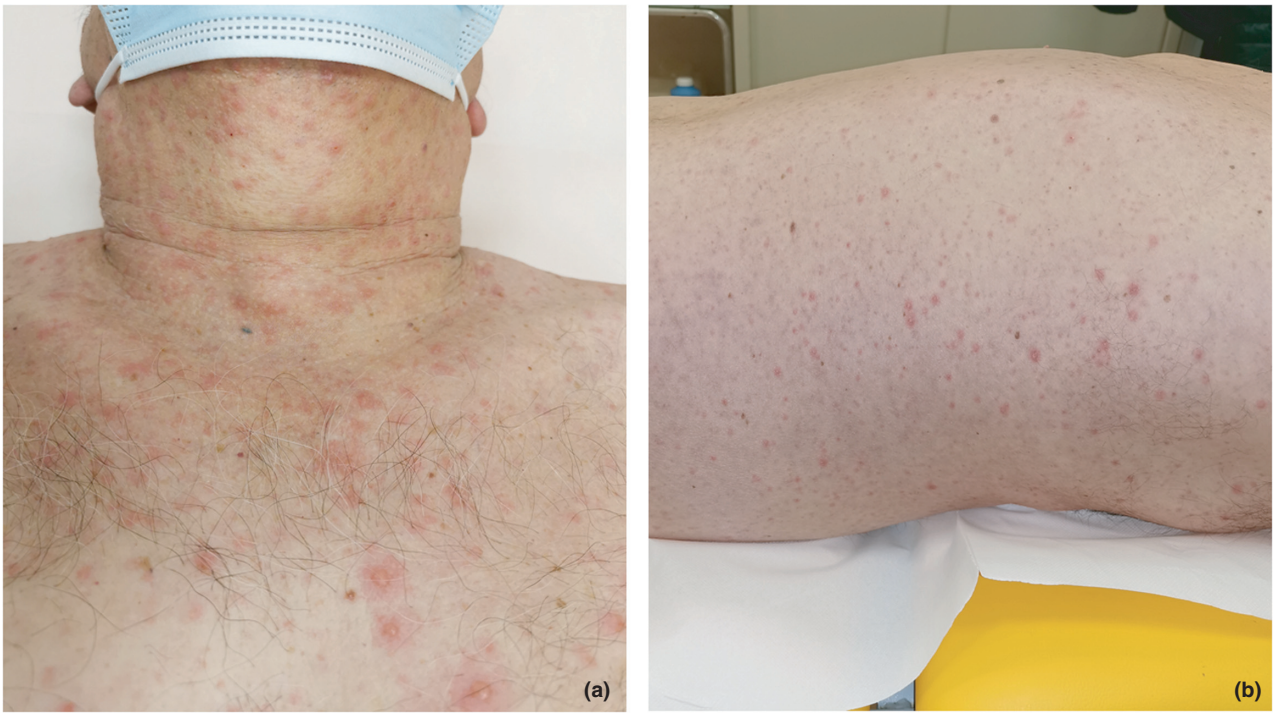

Figure 1 Macroscopic pictures of the lesions distributed on the patient's body; (a) decollete; (b) Side of the thorax.

patient's vaccination record and prescribed a chest X-ray,[2,3] a blood smear, infections viral panel, HIV, HBV, HCV, IgG and IgM for VZV.

We dismissed the patient with acyclovir 800 mg every 6 h for 10 days and programmed a control visit.

One month later, all examinations prescribed were negative, and IgG for VZV was positive, but IgM was negative. Moreover, a past vaccination for chickenpox was tracked in the patient's records. Two weeks later, all the cutaneous lesions healed.

Still, patients referred that all his family (wife and the two small children) developed a varicelloid eruption 2 days after first patient admission.

According to Naranjo scale,[4] we considered probable the diagnosis of 'Disseminated herpes zoster' by the SARS-CoV-2 vaccine.

The diagnosis remains probable, despite the solid temporal relationship, due to the inability to perform a rechallenge, although rare cases of skin manifestations such as disseminated varicella have been reported in the literature after SARS-CoV-2 vaccine.[5,6]

We already are aware that infections cause immunodepression, and it is known that Zoster disease may appear in patients affected by several forms of COVID-19,[1] but disseminated varicelloid eruption, a typical sign of VZV reactivation in an immunosuppressed host, is doubtful in healthy subjects.

We believe that the Pfizer vaccine temporarily reduced or altered the responsiveness of cellular immunity to the VZV, causing a disseminated herpes zoster affection.

It is also possible that the initial vaccination for chickenpox was not sufficient and that the virus reinfected the hosts due to the already circulating virus in other family members. However, due to the recorded vaccination, the previous chickenpox infection at a young age and since he was the first family member affected, reinfection appeared quite unlikely.

What we know is that the greater the number of people vaccinated, the greater the cutaneous side effects we have observed, which have always self-resolved until now without any *sequela*.

Conflict of interest

The authors have no conflict of interest to declare.

Acknowledgement

The patients in this manuscript have given written informed consent to the publication of their case details.

Data availability statement

Data available on request from the authors.

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LETTERS TO THE EDITOR

Perceived stress in four inflammatory skin diseases: an analysis of data taken from 7273 adult subjects with acne, atopic dermatitis, psoriasis or hidradenitis suppurativa

Editor

Adult acne (AA), atopic dermatitis (AD), psoriasis (P) and hidradenitis suppurativa (HS) are common and chronic, inflammatory skin diseases with an incidence that has been estimated at almost 15% of the adult population in France.[1] They are often accompanied by increased psychological stress levels.[2]

This observational, cross-sectional, non-comparative study conducted by five patient associations in France between October 2020 and February 2021, assessed perceived stress in adults with AA, AD, P or HS, as well as self-perceived disease severity and quality of life (QoL) in a large population using a digital questionnaire. The questionnaire was distributed directly to patient association members or through social networks. The study complied with local legal requirements for the conduct of this type of study and received ethics committee approval (CPP Ile de France X, 2020-A01621-38).

The questionnaire ensured that the target dermatoses had previously been confirmed by a health care professional. Stress was