

Autoimmune mucocutaneous blistering diseases after SARS-Cov-2 vaccination: A Case report of Pemphigus Vulgaris and a literature review

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Abstract

Background: Cases of severe autoimmune blistering diseases (AIBDs) have recently been reported in association with the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) vaccination.

Aims: To describe a report of oropharyngeal Pemphigus Vulgaris (OPV) triggered by the mRNA BNT162b2 vaccine (Comirnaty®/ Pfizer/ BioNTech) and to analyze the clinical and immunological characteristics of the AIBDs cases reported following the SARS-CoV-2 vaccination.

Methods: The clinical and immunological features of our case of OPV were documented. A review of the literature was conducted and only cases of AIBDs arising after the SARS-CoV-2 vaccination were included.

Case report: A 60-year old female patient developed oropharyngeal and nasal bullous lesions seven days after the administration of a second dose of the mRNA BNT162b2 vaccine (Comirnaty®/ Pfizer/BioNtech). According to the histology and direct immunofluorescence findings showing the presence of supra-basal blister and intercellular staining of IgG antibodies and the presence of a high level of anti-Dsg-3 antibodies (80 U/ml; normal < 7 U/ml) in the serum of the patient, a diagnosis of oropharyngeal Pemphigus Vulgaris was made.

Review: A total of 35 AIBDs cases triggered by the SARS-CoV-2 vaccination were found (including our report). 26 (74.3%) were diagnosed as Bullous Pemphigoid, 2 (5.7%) as Linear IgA Bullous Dermatitis, 6 (17.1%) as Pemphigus Vulgaris and 1 (2.9%) as Pemphigus Foliaceus. The mean age of the sample was 72.8 years and there was a predominance of males over females (F:M=1:1.7). In 22 (62.9%) cases, the disease developed after Pfizer vaccine administration, 6 (17.1%) after Moderna, 3 (8.6%) after AstraZeneca, 3 (8.6%) after CoronaVac (one was not specified). All patients were treated with topical and/or systemic corticosteroids, with or without the addition of immunosuppressive drugs, with a good clinical response in every case.

Conclusion: Clinicians should be aware of the potential, though rare, occurrence of AIBDs as a possible adverse event after the SARS-CoV-2 vaccination. However, notwithstanding, they should encourage their patients to obtain the vaccination in order to assist the public health systems to overcome the COVID-19 pandemic.

Keywords: Bullous Pemphigoid; Covid-19 vaccine; Pemphigus; SARS-Cov-2.

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Figures



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