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[Translated article] RF-SARS-CoV-2 Vaccination and Immunotherapy in Dermatology

FR-Vacunación SARS-CoV-2 e inmunoterapia en dermatología

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Vaccines that generate immunity against SARS-CoV-2 are already a reality and will be extended to most of society in the coming months.¹

Gresham et al. recently published an evidence-based guide on the use of these vaccines in patients undergoing

dermatological immunotherapy,² based on the 2013 Clinical Practice Guideline for Vaccination of the Immunocompromised Host, published by the IDSA (Infectious Diseases Society of America).³ Clinical decision-making regarding vaccination must weigh the protection from disease afforded by immunization against the risk of vaccine-induced adverse events. Similarly, it is essential to consider the consequences of temporary interruption or withdrawal of treatment, including increased disease activity, relapse, or loss of treatment response.

The vaccines currently available in the European Union for immunization against SARS-CoV-2 consist of RNA molecules (Moderna/NIAID [mRNA-1273] and Pfizer/BioNTech [BNT162]) and non-replicating viral vectors (University of Oxford/Astra-Zeneca [ChAdOx1/AZD1222]), although there are other vaccines in different stages of development based on live attenuated viruses, viral protein subunits, viral replication vectors, DNA, and other virus-like particles.

The safety and efficacy of SARS-CoV-2 vaccines can be hypothesized based on previous experiences with other, similar vaccines. Thus, patients receiving nonbiologic systemic immunotherapy would have a good safety profile (“minimal to no risk [0]”), although those receiving systemic corticosteroid therapy, methotrexate, or JAK inhibitors would have a “low (2)” risk of adverse effects induced by live attenuated virus vaccines, including febrile episodes and disease reactivation. This risk would be considered “minimal (1)”

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in individuals receiving azathioprine treatment. Similar risks would apply to vaccines based on replicating viral vectors in patients with the aforementioned drugs.

Vaccine efficacy could be reduced in patients receiving systemic immune therapies (“variable [+/-]” response), which impair the patient’s immune response, with the exception of anti-JAK therapies (“acceptable [+]”). The temporary withdrawal of medication and/or administration of additional vaccine doses are potential strategies to achieve adequate immunity. However, it should be noted that previous reviews considered methotrexate and JAK inhibitors safe therapies during the COVID-19 pandemic, and even proposed these drugs as candidate therapies for COVID-19.⁴

Based on extrapolation of previously published data, patients receiving biological treatment would have a good safety profile. Regarding antibody production efficacy, the levels achieved would be “good (++)” for anti-interleukin (IL) 17 agents and dupilumab, “acceptable (+)” for anti-tumor necrosis factor (TNF) and anti-IL -12/23 drugs, and “variable (+/-)” for rituximab.

It should be noted that no studies have evaluated the safety or efficacy of vaccination in patients receiving systemic treatment with drugs such as apremilast and thalidomide, or biologic agents such as brodalumab, risankizumab, tildrakizumab, guselkumab, omalizumab, and anakinra.

The estimated risk of developing vaccine-associated enhanced respiratory disease (VAERD) after immunization against SARS-CoV-2, a phenomenon well-described for other viruses, appears low, although the possibility of switching to a Th2 response should be considered.⁵

Finally, the psoriasis group of the Spanish Academy of Dermatology and Venereology (AEDV) has made some recommendations for this group of patients. Based on currently available data, there is no evidence that vaccine administration has negative effects on the course of psoriasis. In conclusion, the true risks associated with vaccination against SARS-CoV-2 in patients undergoing immunotherapy for dermatological conditions will only be determined once vaccines have been more widely administered in real-world settings.

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