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Position statement (possibly for JEADV)

Risk of severe allergic reactions to COVID-19 vaccines among patients with allergic skin diseases – practical recommendations. A position statement of ETFAD with external experts

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Declaration of interests

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Since the introduction of active vaccination against SARS-CoV-2 infection, there has been a debate about the risk of developing severe allergic or anaphylactic reactions among individuals with a history of allergy (1,2). Indeed, rare cases of severe allergic reactions have been reported in the United Kingdom and North America (3). By february 2021 a rate of 4,5 severe allergic reactions occurred among 1 million patients vaccinated with the mRNA-based COVID-19 vaccines (1,3), which is higher than the generally expected rate of severe allergic reactions to vaccinations of around 1 in 1 million (4,5).

Warnings have subsequently been issued that “persons with severe allergies” should not be vaccinated, leading to confusion among patients and vaccinating physicians.

Therefore, the European Task Force Atopic Dermatitis (ETFAD) – in addition to a statement on the use of systemic immunomodulatory treatments for atopic dermatitis (AD) during Covid-19 vaccination (6) - discusses the putative risk of severe allergic reactions to Covid-19 vaccines for patients suffering from allergicskin diseases and give practical recommendations.

Generally systemic allergic reactions to vaccines are rare, and due to hypersensitivity to components of the formulation of the vaccine such as conjugating agents, preservatives, metals, stabilizers, adjuvants and contaminants (5). In case of COVID-19 vaccines, apart from the mRNA, the protein or the vector, one possible elicitor of anaphylaxis could be other ingredients as e.g. polyethylene glycol (PEG) present both in the BioNTech/Pfizer (Comirnaty) and the Moderna (mRNA-1273) vaccines; other additives may be contained in vaccines under development like AZD-1222, NVX.CoV2373, or Ad26.DOV2.S. Based on the available data, the safety and tolerability of COVID-19 vaccines appear to be better than that of e.g. smallpox vaccines (7,8))

The general recommendation is that AD patients should be vaccinated according to their local or national vaccination plan (6). Patients suffering from allergic skin diseases including AD do not per se have an increased risk of anaphylactic reactions to any COVID-19 vaccine. Precautions should be taken where patients have a history of anaphylaxis to drugs in general, especially to vaccinations, and in patients with systemic mastocytosis or idiopathic anaphylaxis. All these patients should undergo a drug allergy diagnostic work-up for allergy prior to vaccination (2,5).

Patients with an acute flare of eczema should be actively treated for their AD but vaccination should not be delayed in these patients. The same holds true for patients with urticaria and other allergic diseases (5).

In selected cases, the use of antiallergic medication prior to vaccination, such as combined histamine H1 and H2 receptor antagonists plus oral glucocorticoids – may be considered, as it is done in peri-operative anaphylaxis or severe reactions to radiographic contrast media (9). Such patients should be observed for 30 minutes after the vaccine injection.

Clear contraindications exist at the moment only for patients with documented severe allergic reactions to ingredients of the respective COVID-19 vaccine.

In case of anaphylaxis, acute treatment includes intramuscular epinephrine as main pharmacotherapy. Epinephrine auto-injectors should be available at the vaccination centres as well as other anti-allergic drugs and balanced electrolyte solutions for volume replacement (9,10).

Nearly all patients with allergic skin diseases can be vaccinated with the registered COVID-19 vaccines available today. Precautionary measures should be taken in a very small subgroup of patients, especially in those with possible severe allergy to ingredients of the vaccine. Knowledge about anaphylactic side-reactions should be improved among physicians and medical health personnel in COVID-19 vaccination centres.

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