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Coronavirus disease 2019 vaccine hypersensitivity evaluated with vaccine and excipient allergy skin testing**Pamela L Kwittken***Fair Haven Community Health Care, USA*

Statement of the Problem: Since COVID-19 mRNA vaccines became available in December 2019; there were early reports of rare cases of anaphylaxis. A selected group of excipients were believed to be the trigger for these reactions, namely polyethylene glycol (PEG), polysorbate 80, and polysorbate 20. The purpose of this study was to use the proposed methods for excipient testing as well as expand testing to include the mRNA vaccine in question as well as recommended options and outcomes for the second dose.

Methodology & Theoretical Orientation: Patients were referred to a private Allergy practice for evaluation of allergic reaction to the Pfizer or Moderna vaccines or who had complex underlying allergic disease and were felt to be at risk of allergic reactions to these vaccines. Testing was performed with the previously published protocol for COVID19 vaccine excipients as well as prick and intradermal skin testing to the Pfizer and Moderna vaccines (1:10 dilution and full strength). Recommendations regarding the second vaccine and premedication were based on the patient's medical history and skin test results. Patients were followed up via telephone. Demographic data, time to reaction, underlying medical conditions, and symptoms were also analyzed.

Findings: With rare exceptions, most patients were able to tolerate the second dose of the same mRNA vaccines with or without medication with mild or no symptoms.

Conclusion & Significance: While it is unclear whether the cause for allergic reactions to mRNA vaccines is IgE mediated, a complement mediated pseudo allergic reaction or another as of yet undefined mechanism, skin testing and premedication are useful to provide guidance for subsequent COVID-19 vaccine doses.

Biography

Pamela L Kwittken MD is board certified in Allergy & Immunology and Pediatrics. She splits her time between private practice in Allergy & Immunology in Milford CT and at a community health center based in New Haven CT. She continues to be a proponent for preventative health care for the underserved in both rural and urban populations.