**Skin reactions to COVID-19 vaccination among Egyptians in three governorates.**

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Received: 20 May 2023

Revised: 1 July 2023

Accepted: 10 July 2023

Published: 1 September 2023

Journal of the Egyptian Women's Dermatologic Society 2023, 20:187–195

Background

In the first 6 months of the pandemic, the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) caused more than a million deaths. Vaccines from several manufacturers, such as Pfizer-BioNTeck, AstraZeneca’s Vaxzevria, and Sinopharm, have been used in an effort to contain the pandemic.

Objective

To evaluate the skin reactions that occurred after receiving multiple types of coronavirus disease-19 (COVID-19) vaccinations among Egyptians in three governorates.

Patients and methods

This clinical cohort study was conducted on 1000 individuals receiving COVID vaccines. The registry’s vaccination module gathered data on vaccine dosage dates, cutaneous reaction(s), reaction timing, and duration. There were four categories of adverse responses to vaccines: systemic, local acute site reactions, delayed local skin reactions, and generalized cutaneous side effects.

Results

Of all individuals, 53.1% had previously contracted Covid-19. 76.3% of the study patients experienced systemic side effects. 91.4% of patients had an ‘injection site’ acute local cutaneous side effect. The Johnson and Johnson vaccination was associated with the highest systemic and local cutaneous side effects incidence, whereas the Sinopharm vaccine was linked to the lowest incidence. 10.2% of individuals experienced delayed cutaneous reactions, with the AstraZeneca vaccine having the greatest incidence and the Pfizer vaccine having the lowest.

Conclusion

Acute cutaneous side effect differs from one vaccine to another. Johnson and Johnson was associated more with bruising and redness, AstraZeneca was more associated with itching, and Pfizer was linked to increased discomfort and tenderness at the injection site. The AstraZeneca vaccination showed the highest prevalence of delayed cutaneous side effects.

Keywords: coronavirus disease arm, coronavirus disease-19, cutaneous side effects, vaccine

J Egypt Women’s Dermatol Soc 20:187–195

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