



SKIN DEEP: UNDERSTANDING CUTANEOUS REACTIONS TO COVID-19 SINOPHARM VACCINE AND THEIR DERMATOLOGICAL IMPLICATIONS

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Abstract

The narrative and comprehensive article provides limited details that emphasize the importance of the topic. The SARS-CoV-2 vaccine, Sinopharm BBIBP-CorV, BBIBP-CorV, has been studied relation to dermatological manifestations and its future implications. The world has faced a pandemic caused by the COVID-19 virus, which has had numerous negative impacts not only on our physical health but also on our mental well-being. Consequently, it has various effects on the skin as well. Through extensive research, we have learned that different types of COVID-19 vaccines exhibit varying dermatological effects. In this study, we collected data on the Sinopharm vaccine, which inactivated vaccine, in a specific region of Karachi to determine whether it has any dermatological side effects. Based on our limited data, we have not identified any adverse effects; therefore, in our opinion, it is

currently the safest option available. However, whether it will remain safe for long-term use is yet to be determined.

Key words: Skin Deep: Unpacking the Dermatological Reactions to COVID Vaccines, cutaneous reactions to covid-19 Sinopharm vaccine, cutaneous reactions to covid 19 vaccines a review, Comprehensive Exploration of Cutaneous Reactions Following COVID-19 Vaccination

Introduction

In December 2019, a significant number of unexplained cases of pneumonia, chest infections, and high-grade fever, accompanied by a sudden drop in oxygen saturation, were reported in Wuhan, China. This disease is caused by the SARS-CoV-2 virus, which was initially referred to as coronavirus disease and later evolved into the COVID-19 pandemic, affecting the entire world [1] Many individuals have suffered from this disease, with numerous cases resulting in death. Ultimately, several vaccines were developed to combat this virus and curb the pandemic. Initially, people were hesitant to receive these vaccines due to the limited research available on the virus and related vaccines. However, as time passed following the introduction of multiple vaccines, individuals began to receive vaccinations in an effort to fight the pandemic. Although the COVID-19 virus is known to cause serious chest infections and pneumonia, it also has dermatological manifestations. These include chilblain-like skin eruptions (e.g., COVID toes), urticarial-like skin eruptions, maculopapular lesions, vesicular eruptions, purpura, livedo reticularis, necrotic lesions, urticarial vasculitis, and other conditions such as alopecia and herpes zoster. Various dermatological side effects following immunization have been reported. The major cutaneous adverse effects after immunization are type I hypersensitivity reactions (urticarial and anaphylaxis) and type IV hypersensitivity reactions (COVID arm and erythema multiform) [2]

One case in Iran involved a 38-year-old Iranian woman who developed a fixed drug eruption like picture after receiving the 1st dose of Sinopharm vaccine [3]

So, we collect and assess our data to understand the dermatological outcomes related to the Sinopharm vaccine.

In this study, our objective is to investigate the dermatological complications that may arise following COVID-19 vaccination in Central Karachi, Pakistan. We will analyze reported cases, including their onset, duration, clinical features, and the risk factors that significantly contribute to their development.

Materials and Methods

In this cross-sectional observational study, we included a total of 5,420 residents from the combined population of District Central Karachi, Pakistan. Of these, 4,349 individuals received the first dose of the Sinopharm vaccine, while 1,071 received the second dose, with a vaccination schedule spanning 56 days. Among these participants, we will examine the range of dermatological side effects following COVID-19 vaccination. After obtaining informed consent from the participants, we collected comprehensive information about individuals who came for vaccination, including a questionnaire that gathered relevant details regarding gender, occupation, economic status, and side effects observed during a specific period, along with associated signs and symptoms.

Procedure

Under sterile techniques, we administered the Sinopharm COVID-19 vaccine to the selected individuals. All patients were advised to return if they experience any side effects, particularly dermatological reactions.

Exclusion Criteria

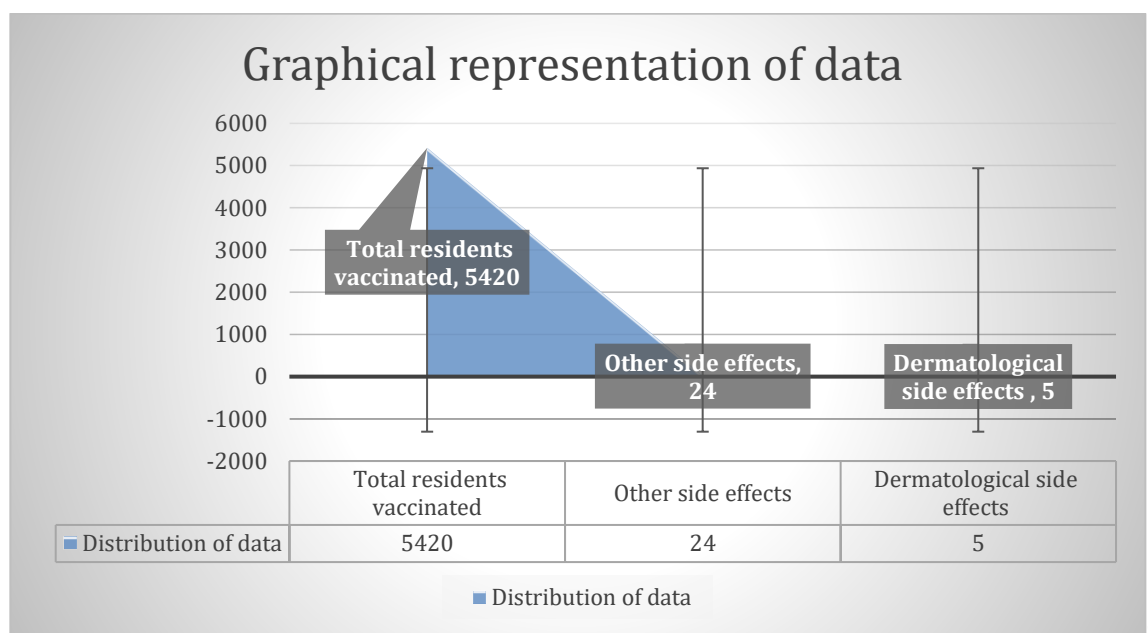
Individuals who are currently infected, under 10 years of age, or over 80 years old are excluded from the study.

Inclusion Criteria

Individuals over 10 years of age with no active infections, as well as those under 80 years of age who have only received the Sinopharm vaccine, were included in the study.

Statistical Analysis

This data is derived from a single region. No serious dermatological side effects have been observed as such. To simplify the findings, standard descriptive statistics are presented as both numbers and percentages for categorical variables. Additionally, graphical representations, along with data callouts, have been included.



Graphical representation of data

Result

A thorough analysis revealed that out of 5,420 residents who received the Sinopharm vaccine, only 24 individuals (0.442%) reported experiencing side effects. These side effects included headache, nonspecific symptoms, vertigo, nausea, chills, vomiting, sore throat, hoarseness, general weakness, diarrhea, and others. Additionally, only 5 patients (0.092%) reported dermatological reactions: 1 patient experienced itching and a mild rash at the injection site, 3 patients reported pain at the injection site accompanied by mild redness, and 1 patient suffered from diffuse redness at the injection site and throughout the entire forearm, along with pain after the first dose of the Sinopharm vaccine. This patient developed symptoms approximately half an hour after receiving the vaccine and experienced tenderness, diffuse redness, and warmth in that area for about one week. It is normal to experience mild itching, redness, and pain at the injection site following vaccination. One female patient reported diffuse redness, which may indicate mild cellulitis; however, this is most likely attributed to improper technique involving excessive rubbing at the injection site. The issue was resolved by applying warm compresses, administering anti-inflammatory medication, and her condition improved within a week.

Discussion

It has been observed that this pandemic poses a significant threat to all of us and has numerous impacts on our health and well-being. Therefore, individuals must select their preferred vaccination to protect themselves. With the emergence of various vaccines, we have chosen to investigate the Sinopharm vaccine to determine its dermatological effects on vaccinated individuals. It is normal to experience mild itching, pain, or redness at the injection site, which cannot be classified as serious side effects. Among the general population, only one reported case involved an individual who suffered from mild

cellulitis, attributed to improper technique. Thus far, the COVID-19 Sinopharm vaccine has demonstrated a significantly safe profile for all individuals who received it. However, this study has several limitations, including a lack of comprehensive data related to other vaccines. We did not include individuals under the age of 10 or over 80 years. Most importantly, the Sinopharm vaccine has been reported as the safest among all COVID-19 vaccines concerning side effects. All patients have been monitored for six months' post-vaccination for any dermatological side effects, and to date, no complaints have been reported. However, after approximately two years, many individuals' immune systems related to allergies have become more sensitive. Some have developed sensitivities to certain medications, while others have become sensitive to dust, which was not previously reported. Additionally, some individuals have experienced frequent infections or developed allergies or urticarial rashes that were not present before the two-year mark. Therefore, while it may be reasonable to assert that this vaccine has not resulted in any serious dermatological outcomes within a short period, the long-term safety of its use remains uncertain and warrants further investigation.

Conclusion

The study and the group of individuals from whom we collected data have concluded, after thorough investigation, that the Sinopharm COVID-19 vaccine does not exhibit any dermatological side effects in the short term. For the long term, we must continue to follow up with all clients and conduct periodic investigations to assess its future impact on dermatological and other health-related issues.

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