

## Herpes Zoster Following COVID-19 Vaccine: A Case Report

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### Abstract

### Case Report

A 55 year old man after received his second dose of vaccine; after 10 days, patient complain tingling and numbness in left vaccinated arm. Patient was clinically diagnosed with herpes zoster. Patient was given antiviral treatment.

**Keywords:** Herpes zoster, covishield vaccine, C5- C6 dermatomes, post vaccination side effect.

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## INTRODUCTION

The world has entered second year of SARS-CoV-2 pandemic and new variants of the virus emerge, vaccines are needed to protect individuals at high risk for complications and to potentially control the mortality and morbidity by establishment of herd immunity [1]. Many pharmaceutical companies started manufacturing vaccine against SARS-CoV-2. Worldwide administration of vaccination is ongoing, against SARS-CoV-2 (COVID-19) pandemic. There are increasing reports of herpes zoster (HZ) following SARS-CoV-2 mRNA vaccines (Pfizer-BNT162b2 mRNA and Moderna mRNA-1273) [2-6].

The Oxford/AstraZeneca vaccine, AZD1222 (ChAdOx1 nCoV-19) which uses a live modified chimpanzee adenovirus, has been approved and used in many European and Asian countries. Clinical trial was conducted by multinational placebo-controlled in Brazil, South Africa and the UK, no event of HZ followed by AZ vaccination was reported [7].

## CASE REPORT

A 55-year-old healthy man, with no systemic illness, received his first injection of Covishield COVID-19 vaccine in month of April 2021. He had fever for one day and no other sign and symptom were present. After three months gap i.e., in July 2021, patient received his second dose of vaccination. Patient had no history of fever after second dose and any other sign and symptom were present. On tenth day, of post vaccination of second dose, patient came to OPD with chief complain of tingling and numbness in left vaccinated arm with small fluid filled blister over left

C5 and C6 dermatomes (Fig 1 and 2). Patient was clinically diagnosed with Herpes zoster (HZ).



Figure 1: Show cluster of blisters on a red base in a C5-C6 dermatome



**Figure 2: Show cluster of blisters on a red base in a C5-C6 dermatome**

## DISCUSSION

HZ does not often appear after the administration of other kinds of vaccinations. But we believed that there might be a link between COVID-19 vaccine and HZ emergence. It is important to mention the incidence of HZ cases following COVID-19 vaccination which were mild and resolved after antiviral treatment. We advise that awareness be raised regarding the recognition of HZ emergence following COVID-19 vaccination. Steps to be taken to address post-herpetic complication by administering antiviral treatment early [8].

In January 2021, the Central Drugs Standard Control Organization (CDSCO) in India granted emergency use authorization to two vaccines Covishield® (AstraZeneca's vaccine manufactured by Serum Institute of India) and Covaxin® (manufactured by Bharat Biotech Limited). Covishield or AZD-1222 uses a weakened strain of adenovirus as vector, which contains genetic material similar to that of SARS-COV-2 and upon administration, stimulates the production of antibodies against the spike protein [9].

## CONCLUSION

HZ remain dormant in ganglion after an episode of chicken pox in past or its vaccination. Which get activated when there is state of immunocompromise, increasing age, physical or

emotional stress. However, our patient was not having any systemic disease or any history of past exposure of HZ. He was clinically diagnosed and started with antiviral treatment for 7 days with multivitamins to boost up the immunity and asked for the follow up.

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