

COVID-19 Pfizer Vaccine associated case of Leukocytoclastic vasculitis

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Abstract

Background: Hypersensitivity or Leukocytoclastic vasculitis following the Pfizer and Moderna Covid-19 vaccine have been reported rarely after the covid 19 vaccines in patients having underlying comorbid autoimmune conditions.

Case Presentation: A 58-year-old male came within one week after the first dose of Pfizer mRNA vaccine complaining of a rash and itching on both his hands and feet with no past medical history of any chronic disorder. He had no associated systemic symptoms. Initially, there was no response to prednisone 20mg so a comprehensive blood test was performed which showed decreased complement C3 (54 mg/dL, normal: 90-207), elevated ESR (30 mm/hr, normal: 10-20), elevated CRP 9.29 mg/L. There was no associated hemorrhage, oral mucosal lesion, or increased IgA ruling out other forms of vasculitis. On the basis of the history of the covid-19 vaccine in the previous week, he was suspected of having post-covid19 vaccine vasculitis and the steroid dose was increased. The rash began resolving after a few doses of steroids and continued for a month.

Conclusion:1. This case highlights the occurrence of vasculitis in patients with no comorbid conditions and without associated systemic symptoms.

2.Allergic or leukocytoclastic vasculitis reactions to covid vaccine components can occur weeks after the vaccine administration.

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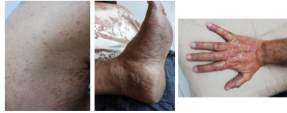
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Introduction

There have been many cases reported to have Hypersensitivity or Leukocytoclastic vasculitis following the Pfizer and Moderna Covid-19 vaccine. The factors which can contribute to cutaneous vasculitis following vaccination include autoimmune disorders, immunosuppressive drugs and malignancy.

1 week after Pfizer Covid vaccine :-



Patient one month after starting the treatment (oral steroids) :-



Case Presentation

- ❖ We report a case of a 58 year old male who came within one week after the first dose of Pfizer mRNA vaccine complaining of a rash and itching on both his hands and feet with no past medical history of any chronic disorder. He initially consulted a dermatologist who diagnosed him as having eczema.
- ❖ The rash consisted of small pruritic painful papules on both the hands, feets and upper back and abdomen as shown in the images. There was no underlying comorbid conditions. Patient was taking cetirizine hydrochloride 10mg, prednisone 20 mg, diclofenac sodium 50 mg tablets which showed no improvement in his rash within a week of his treatment.
- ❖ The comprehensive blood panel tests were sent which showed normal CBC,WBC count ,Haemoglobin ,RBC count, and Platelet count were normal. His BUN – 50 and Serum creatinine – 0.93, Complement C3 decreased to 54 mg/dL (normal: 90-207), ESR 30mm/hr (normal: 10-20), CRP 9.29mg/L ,and ANA is 1:100, weakly positive.
- ❖ Analysing his blood tests results and his complaint of painful pustular rash on hands and feet there was a high suspicion of vasculitis. His oral dose of steroids was increased along with antihistamines. We ruled out HSP and other classic causes of the lesions. There was no associated haemorrhage, no associated oral mucosal lesion thereby ruling out Steven Johnson's syndrome. He has low complement levels suggestive of the deposits in the reaction to vaccines. He was prescribed oral steroids for one month which showed significant improvement in rash.

Discussion

- ❖ This patient had no underlying condition before this episode and the appearance of purpuric pruritic papules after the first dose of Pfizer covid-19 vaccine. He had no systemic symptoms, and symptoms appeared within a week after administration.
- ❖ According to American College of Rheumatology criteria for hypersensitivity vasculitis: the patients age of vasculitis initiation being above 16 years, history of taking covid 19 vaccine before initiation and the presence of palpable purpura. The presence of 3 or more of these 5 criteria was associated with a sensitivity of 71.0% and a specificity of 83.9%.

Conclusion

- ❖ Cutaneous reaction following Covid vaccine has been rarely reported. It is debatable whether to use the vaccine after this type of reaction. However this patient has denied second dose of vaccination.
- ❖ However caution and regular screening for any adverse reactions should be followed and should be reported.
- ❖ Allergic or leukocytoclastic vasculitis reactions to covid vaccine components can occur weeks after the vaccine administration.
- ❖ Most of the cutaneous reactions to COVID-19 vaccine respond to oral steroids.