

Successful Administration of the Influenza Vaccine after Prior Serum Sickness in an HIV-Positive Patient

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Serum sickness is a type III hypersensitivity reaction to an antigen, leading to accumulation of immune complexes, inflammation, and vasculitis; causing symptoms like fever, rash, abdominal pain, and arthralgia (1). Serum sickness reactions to vaccination have previously been described (2-6), and are treated with steroids and removal of the offending agent (1). However, successful desensitization has been previously described (7). We present a case of successful re-administration of the influenza vaccine in an HIV+ patient, with previous history of serum sickness secondary to influenza vaccination. A 48-year-old male with uncontrolled HIV was admitted in October 2017 due to rash after receiving the influenza vaccine. The rash started on his arm and spread medially; and was associated with joint swelling and extremity pain. The patient was admitted and treated with prednisone, which resolved his serum sickness. At the time of presentation, the patient's last CD4 count was 4, and a viral load was 177,000. HIV genotype revealed M184V and K65R mutations. In July 2018, the patient established care for uncontrolled HIV. He was prescribed lamivudine-zidovudine, dolutegravir, and darunavir-cobicistat. Adherence to therapy resulted in CD4 count of 223 and an undetectable viral load in September 2021. In November 2021, he successfully received the inactivated influenza vaccine, without resultant serum sickness. In this case, after immune reconstitution, the patient was able to tolerate the influenza vaccine. Serum sickness reaction to influenza vaccination has not previously been described in HIV+ patients but may be an important consideration prior to vaccination in immunocompromised individuals.