World Academy of Science, Engineering and Technology
International Journal of Medical and Health Sciences
Vol:17, No:10, 2023

Serum Sickness-Like Reaction to D-Mannose Supplement

Authors : Emma Plante, Charles Ekwunwa, Diego Illanes

Abstract : Introduction: Serum Sickness-Like Reaction (SSLR) is an inflammatory immune response characterized by a rash, polyarthralgias, and fever. SSLR usually occurs in response to a new medication (most commonly antibiotics, anticonvulsants, or antiinflammatory agents) and is believed to involve the formation of drug-specific immune complexes. Here we present a case of a 16-year-old female patient who developed an SSLR in response to the D-mannose-containing over-the-counter supplement, Uqora, used to promote bladder health. Methodology: The methodology for this study included a thorough literature search for other cases of SSLR associated with D-Mannose containing products. Data collection was performed through a review of the patient's medical record, including history, physical examination, relevant laboratory results, and treatment plan. Findings: A 16-year-old female with a history of overactive bladder and anemia presented with a diffuse urticarial rash, headaches, joint pain, and swelling for three days. Her medications included oral contraceptive pills, iron, mirabegron, UQora, and a probiotic. Physical examination revealed a diffuse urticarial rash, and her musculoskeletal exam revealed swelling and tenderness in her wrists. Her CBC, basic metabolic panel, liver function panel, lyme titers, and urinalysis were all within normal limits. The patient was referred to an allergist, who diagnosed her with SSLR. All medications were discontinued, and she was treated with a 7-day course of prednisone and cetirizine. Her symptoms resolved, and her medications were slowly resumed sequentially over several months. However, UQora triggered a recurrence of her symptoms, and it was identified as the culprit medication. Consequently, UQora was permanently discontinued, and the patient has remained symptom-free. Conclusion: This case report describes the first documented case of SSLR caused by UQora (active ingredient D-mannose). D-Mannose is a monosaccharide found in many plants and fruits, and it is commonly used to prevent urinary tract infections. While the clinical features and timeline, in this case, were typical of SSLR, UQora as the trigger was highly unusual. Clinicians should be aware of the diverse triggers of SSLR and the importance of prompt identification and management to enhance patient safety. It is possible D-mannose was not the trigger, and further research is necessary to better understand the potential therapeutic applications of D-mannose, as well as the potential risks and interactions.

Keywords : serum sickness-like reaction, d-mannose, hypersensitivity reaction, urticaria
Conference Title : ICDDS 2023 : International Conference on Dermatology and Dermatologic Surgery
Conference Location : New York, United States
Conference Dates : October 09-10, 2023