MIDDLE EAST RHEUMATOLOGY CONFERENCE MRC2022

Category: Health Professionals in Rheumatology Practice and Clinical Care

Ref: MRC2022-A-1016

COVID Vaccine Triggering New Onset Development of Systemic Lupus Erythematosus with Lupus Nephritis

Main Author: Hiba Khogali, Al Ain United Arab Emirates

[1]Hiba Khogali, [1]Abdul Rahman Khamis Aleissaee

[1]Tawam Hospital

Abstract Title: COVID Vaccine Triggering New Onset Development of Systemic Lupus Erythematosus with Lupus Nephritis

Introduction:

COVID19 pandemic infection was the most serious panic-inducing events in 2020.It yielded the highest rate of death faced by Humans population during recent century. The quick need to develop vaccines and emergency use authorization was a fundamental desire. However, the new etiology of the virus has revealed its suspected effects upon body physiology and other many unclear factors were associated by the development of some specific diseases. a case was reported of 29-year-old female married not having children and with no pervious past medical problem presented initially with non-specific symptoms; two weeks after receiving the second dose of Pfizer vaccine.Clinical evaluation supported by laboratory findings fulfilled the diagnosis of SLE in absence of other diagnoses.

Pfizer vaccine is an m-MRN vaccine approved for SARS-Cov2 virus was reported as one of most potent newly developed vaccine against COVID 19. It works by producing viral proteins provoking the immune system to develop antibodies against SARS-Cov2 virus. With the board use of vaccine worldwide , several case reports stated the development of variety of autoimmune diseases.

Method(s): A case report

Result(s): A 29-year-old female was admitted under Internal Medicine team with 5 days history of abdominal pain, pleuritic chest pain, orthopnea, nausea, vomiting and watery diarrhea 2 weeks after receiving second dose of Pfizer vaccine (mRNA vaccine). Furthermore, she reported history of fatigue, arthralgia, hair loss, depressed mood, decreased activity, dry eyes and mouth. There was no history of fever, oral ulcers, or joint stiffness. On physical examination, she was found to have a distended abdomen with bilateral lower limbs pitting edema . No rash, swollen or tender joints could be identified. All routine Laboratory tests came negative including septic work panels. The immunological screen revealed positive anti-nuclear antibody (ANA titer 1:640, speckled pattern), extractable nuclear antigen (ENA, with positive SSA and SSB antibodies) and double-stranded DNA antibodies (dsDNA 66.5 IU/mL). She had low C3 (0.42 g/L) and C4 (0.09 g/L) levels. Radiological films (CT Abdomen /Pelvis) documented bilateral pleural effusion, moderate ascites, and multiple enlarged lymph nodes in the para-aortic and aortocaval, pericaval and alongside the femoral and iliac vessels in the pelvis. Patient developed persistent proteinuria

(1.11 g/g Creatinine) and hematuria with stage one acute renal impairment for which renal biopsy was done. Renal biopsy revealed focal lupus nephritis, segmental, active, ISN/RPS Class III-S(A).The patient meets the criteria for SLE diagnosis based on presence of alopecia, serositis, positive ANA, positive dsDNA, and low complements with SLEDAI-16. She received parental steroids followed by oral dose, hydroxychloroquine, and mycophenolate. After two months, the patient achieved clinical low disease activity with SLEDAI-2.

Conclusion(s):

This case highlights the triggering effect of Pfizer vaccine towards autoimmunity, occurring as systemic lupus erythematosus with progression of its other disease entities. Early recognition and treatment of such cases is associated with better clinical outcomes. More scientific research models are needed to detect such impact of the vaccine.