A CASE SERIES OF LUPUS FLARES FOLLOWING ASTRAZENECA/OXFORD VACCINE

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BACKGROUND

It is known that vaccination can be a trigger to flare up autoimmune diseases. Few data are available about COVID-19 vaccines. Hereby we report 3 cases of systemic lupus erythematosus (SLE) flare following AstraZeneca/Oxford vaccination.

CASES REPORT

First case is a 23-year-old man with previous neuropsychiatric lupus. He had received cyclophosphamide (CCF) 2 months before immunization and was on remission. After 1 week of the vaccine, he gradually flared main neurological symptoms (intense neuropathic pain, paresthesia, headache, anxiety) besides arthralgia and photosensitivity (SLEDAI 16). He also felt a refractory pruritus associated with paresthesia. Symptoms were more intense on the right half of the body, same side of inoculation. After 500 mg of CCF, symptoms were improved.

Second case is a 39-year-old woman with previous nephritis partially controlled with 2 g of mycophenolate mofetil (MMF), SLEDAI 8. Two weeks after immunization, she presented mild headaches, mucosal ulcers and arthralgias. Over time, she was hospitalized with pleuritis, arthritis (more intense in the half of the body where inoculation occurred) and was hypertense. Exams showed increased inflammatory tests and urinary sediments; but normal complement and negative anti-DNA. Renal biopsy revealed active membranous and proliferative nephritis (SLEDAI 24). Treatment initiated was methylprednisone pulse therapy and MMF 3 g. There was resolution of pleuritis, arthritis urinary sediment and normalization of inflammatory tests. There was gradual reduction of proteinuria. Rituximab is a plan in case of unsatisfactory evolution.

Third case is a 73-year-old woman with previous cutaneous-articular lupus on remission. She had a flare characterized by digital vasculitis and hand arthritis 2 weeks after immunization (SLEDAI 12). She was receiving 100 mg of azathioprine at the time of the flare and was treated with a temporary increased dose of prednisone plus 150 mg of azathioprine. Her symptoms were rapidly resolved. This patient was on previous investigation of iron deficiency anemia, diagnosing colon carcinoma.

CONCLUSION

These three cases showed a SLE flare within 1 to 2 weeks of the AstraZeneca/Oxford vaccination, suggesting that it could be a potential trigger of SLE flares. Adjusting immunosuppression was sufficient to control symptoms. We understand malignancy can be a bias; however, we valorize temporal association of flare with immunization. More evidence is necessary to understand how SLE respond to this vaccine. Nevertheless, immunization is crucial to protection of SLE patients against COVID-19, since this population may be at increased risk of poor outcomes, particularly those on rituximab or high dose steroids.

KEYWORDS

Systemic lupus erythematosus, COVID-19 vaccine, Flare, Lupus flare, SLE.