

# COVID-19 Booster Vaccine Related Dermatitis: A Case Study

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## INTRODUCTION

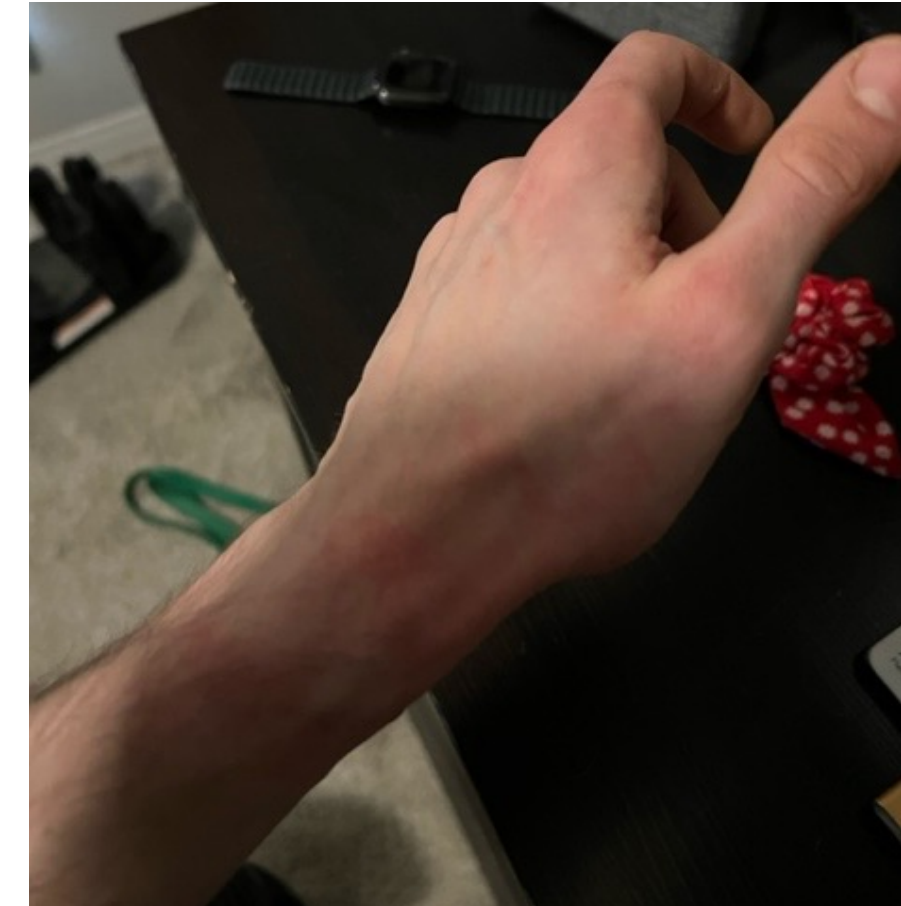
A **28 year-old male** with a past medical history of hypothyroidism and positive ANA presented to an outpatient dermatology clinic with a **diffuse pruritic rash two weeks after the administration of his first Moderna COVID booster vaccine**. He denied any other accompanying symptoms such as fever or chills as well as any similar rashes to prior doses of the Moderna COVID vaccine.

The rash consisted of **pink erythematous minimally scaly papules, thin plaques and patches involving the left and right dorsal hands, forearms, wrists, face, neck and left shoulder**. The remainder of the patient's skin including the bilateral lower extremities, the eyelids, conjunctiva and oral mucosa were clear. The patient denied any similar rashes in the past.

The patient denied any allergies to medications, food or the environment. He denied any notable contact allergen exposures, including soaps, lotions, and cosmetic products. The patient also denied any significant family history or past surgical history. The patient was on Armour Thyroid for hypothyroidism and testosterone for low levels since age eighteen. The patient was started on cetirizine 10 mg once daily for the rash with minimal improvement.

Autoimmune workup for the rash was notable for an elevated anti-RNP. The patient's past medical history also included Raynaud's phenomenon and ANA positivity for ten years, leading to a previous diagnosis of mixed connective tissue disease (MCTD).

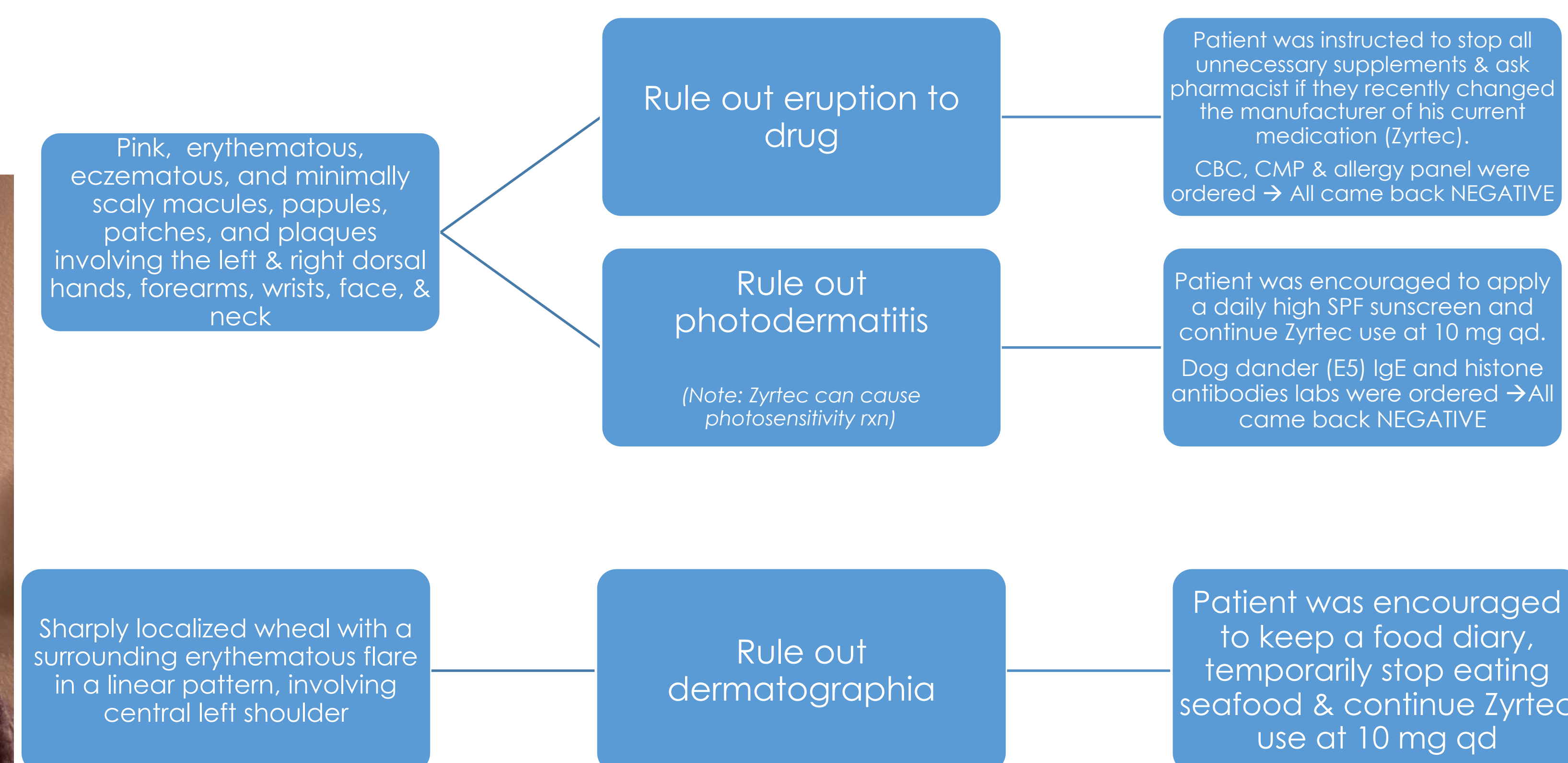
Autoimmune conditions can often have an indolent course, where symptoms progressively develop and worsen. MCTD is an autoimmune overlap syndrome that can consist of the following three connective tissue diseases: systemic lupus erythematosus, scleroderma, and polymyositis.



## DIFFERENTIALS & PLAN

Our plan consisted of ruling out...

1. Drug-induced eruption
2. Photodermatitis
3. Dermatographia



## CONCLUSION

Millions of individuals across the world are receiving COVID vaccines to protect themselves and members of their community, and it is of utmost importance that we continue to investigate adverse events. Although of low incidence, these rare effects have the ability to impact large numbers of people within both healthy and immunocompromised populations. It is critical that we examine and document them in a rigorous manner, to ensure safe vaccine delivery and reassure the public about vaccine safety overall.

## CONTACT

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