PSORIASIS

MASSIVE EOSINOPHILIA INDUCED BY MULTIPLE BIOLOGIC AGENTS IN A PATIENT WITH PSORIASIS AND TURNER'S SYNDROME

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Background: We present a 40 year old female with massive eosinophilia after exposure to 3 of 4 biologic agents for psoriasis. She has long-standing psoriasis (diagnosed at 15 years of age) that had failed conventional therapies, including topical therapies, cyclosporin, methotrexate and narrow-band UVB therapy. Of interest, she has Turner's syndrome and no previous history of allergic disease.

Observation: Our patient first commenced on Adalimumab for chronic plaque psoriasis from 2009-2015. In 2015, she required intensive care admission for pneumonia and Adalimumab was ceased due to patient preference. Due to a flare of pustular psoriasis in 2015, she was commenced on Secukinumab but developed facial swelling, widespread urticaria and severe eosinophilia (peaking at 33.5x109) following the sixth dose. No other causes of eosinophilia, such as malignancy, infection, allergic or autoimmune disease, could be identified from a thorough work-up including a bone marrow biopsy, imaging studies and parasitic screen. Her eosinophilia resolved following cessation of Secukinumab. For ongoing control of her psoriasis, she was commenced on Ustekinumab in 2016 -2017, however due to lack of efficacy, she requested to try Ixekizumab (similar class to Secukinumab). She unfortunately experienced a similar eosinophilia with facial swelling after the fifth dose (eosinophils peaking at 39.4x109). In 2018, she was recommenced on Adalimumab but developed eosinophilia (eosinophils of 7.9x109) and left eyelid swelling after 6 months of therapy, despite tolerating this therapy well for six years previously.

Key Message: Our case is unusual due to the severe eosinophilia induced by multiple biologics. Biologics-induced hypereosinophilia is a very rare entity. Previous reports have suggested that biologics-specific IgE or IgG antibodies can cause hypersensitivity reactions. We hypothesise that, given Turner's syndrome is associated with the development of autoimmune conditions, our patient may have been prone to developing biologic-specific antibodies that caused her acute marked eosinophilia.