AB009. Successful treatment of severe systemic lupus erythematosus and psoriasis with IL-17A inhibition

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Abstract: The coexistence of psoriasis and systemic lupus erythematosus (SLE) is uncommon, with prevalence estimated at 0.5–5%. In this case, a 20-year-old woman with a history of severe SLE complicated by lupus nephritis and mesenteric vasculitis presented with a new rash on the face, scalp, and forearms. Skin biopsy revealed features of psoriasis within the epidermis, in addition to the palisaded neutrophilic granulomatous dermatitis within the dermis explained by her underlying SLE. Treatment options were considered in view of her possible cytokine profile and predominant inflammatory pathway. The Th17 pathway has been implicated as a common immune pathway in both diseases, leading to cytokine production including the proinflammatory cytokine interleukin-17A (IL-17A). Studies have shown increased level of IL-17A in the serum and involved tissues of patients with SLE as well as the biopsied plaques of psoriasis. Randomized control trials have shown efficacy of IL-17A inhibition in decreasing the severity and extent of psoriasis, and case reports have noted improvement in SLE activity scores in patients who had been refractory to other management strategies. This patient was treated with IL-17A inhibition, which dramatically improved her rash and allowed complete tapering of her baseline immunosuppressive regimen while maintaining SLE quiescence. This case demonstrates that there may be a subset of SLE patients who respond to IL-17A inhibition, particularly in the setting of overlap with diseases in which IL-17A inhibition has previously shown efficacy. Teaching point: IL-17A inhibition may be effective treatment for SLE overlapping with inflammatory diseases in which IL17A is known to play a role including psoriasis, seronegative spondyloarthropathies, and rheumatoid arthritis.

Keywords: Interleukin-17A inhibition (IL-17A inhibition); systemic lupus erythematosus (SLE); psoriasis

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