ADVERSE DRUG REACTIONS, INCLUDING SJS, TEN

CASE REPORT: PEMBROLIZUMAB-ASSOCIATED PSORIASIS EXACERBATION

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Background: Pembrolizumab is a monoclonal antibody targeting programmed cell death protein 1 (PD-1) of lymphocytes. This checkpoint inhibitor has been used in the treatment of multiple malignancies, including melanoma, with dramatic tumor response and improved survival. However, overactivation of the immune system has been reported to cause exacerbation of underlying autoimmune disease. In this report, we describe a case of psoriasis exacerbation triggered by pembrolizumab.

Observation: A 66-year-old male was referred to the dermatology service three weeks after treatment initiation of pembrolizumab for newly diagnosed stage 4 non-small-cell lung carcinoma. He presented with a worsening erythematous, non-pruritic rash over his body, with no associated joint pain. The patient had a history of psoriasis which was stable over the last 15 years, chronic obstructive pulmonary disease, hypothyroidism, and colonic adenoma.
Physical examination revealed diffuse well-demarcated erythematous scaly papules and plaques over the trunk and extremities, covering approximately 20% of body surface area. Nail pitting was present. Betamethasone valerate 0.1% ointment was prescribed. Upon follow-up, his psoriasis had improved significantly despite continuing pembrolizumab and no additional treatment for his skin lesions was required.

Key message: To date, there have been a few reports of pembrolizumab exacerbating autoimmune conditions like psoriasis. However, as the use of checkpoint inhibitors will likely become the standard of care for certain malignancies, it is crucial to increase awareness about this adverse event. Dermatologists play an essential role in the early recognition and appropriate management of these immune-related adverse events. It is also important to exercise caution when using prednisone for cutaneous adverse events as certain dermatologic conditions like psoriasis may be exacerbated upon withdrawal of systemic corticosteroids.