ADVERSE DRUG REACTIONS, INCLUDING SJS, TEN

A CASE OF LICHEN PLANOPILARIS IN A PATIENT TAKING PEMBROLIZUMAB FOR STAGE THREE MELANOMA

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Background: Anti programmed cell death-1 (PD-1) immunotherapies such as pembrolizumab are known to cause cutaneous eruptions with a range of reaction patterns including lichenoid, psoriasiform, bullous and morbilliform. We present a rare case of lichen planopilaris (LPP) secondary to pembrolizumab.

Observation: A 62-year-old woman with stage III melanoma, and pelvic lymph node disease, was commenced on adjuvant pembrolizumab in January 2017.
In December 2017, she developed a pruritic eruption on her lower legs and scalp with associated hair loss. She was not taking any regular medication.
Examination revealed scattered discoid lesions predominantly on the shins. On the scalp, there was an erythematous, perifollicular scaly eruption with associated alopecia, at the frontal and occipital scalp. The eyebrows were also affected. This was clinically in keeping with LPP.
Scalp biopsy showed evidence of a scarring alopecia with a dense peri-follicular inflammatory infiltrate composed mainly of lymphocytes. The eruption on her legs resolved prior to biopsy with topical clobetasol propionate ointment.
The inflammation and hair loss has been halted with oral doxycycline 100mg od, topical clobetasol propionate scalp lotion and protopic 0.1% ointment. This is despite continuing pembrolizumab necessary to complete the two-year treatment course.

Key Message: Up to 40% of patients experience cutaneous adverse reactions with blockade of PD-1 which can, in some cases, occur sometime after initiation of therapy. However, there is only one case of LPP-associated with pembrolizumab published in the literature. In our case, the frontal and ophiasis-like distribution of hair loss was particularly striking. The mechanism by which PD-1/PD-L1 inhibition causes cutaneous eruptions is not fully understood. It is thought to be a result of reactivated T-cells targeting dermal antigens, generating an inflammatory and autoimmune response. It is important to recognize skin toxicity early, treat appropriately and, where possible, continue patients on these vital treatments.