Pembrolizumab

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Various toxicities: case report

A 62-year-old woman developed Dermatitis, Hypothyroidism, Keratoacanthoma and Lichen-planus during treatment with pembrolizumab for de novo metastatic lung adenocarcinoma [*route and duration of treatment to reaction onset not stated*].

The woman, who was a smoker with history of dyslipidemia and transitional cell carcinoma of the right renal pelvis/ureter, for which she had received Bacillus Calmette-Guerin (BCG), 18 years prior, presented with night sweats for 6 weeks, shortness of breath, weight loss (10lb) over 1 year, central chest discomfort and decreased appetite. Upon admission, she underwent a chest X-ray, which revealed bilateral pleural effusion with pericardial effusion; due to hemodynamic instability, she required pericardial drain. Her cytology reports were notable for TTF-1-positive adenocarcinoma. She was planned for chemotherapy with pemetrexed and carboplatin, until her pericardial effusion worsened. Biopsy was found to be positive for PD-L1 as well as mutated KRAS, TP53 and G12C. Therefore, she started receiving monotherapy with pembrolizumab in lieu of previously planned chemotherapy. Further, 1 week later, she was readmitted to hospital due to worsening of shortness of breath. Therefore, she underwent pericardiocentesis. As it was well tolerated, she continued pembrolizumab therapy. Post second dose of pembrolizumab, she improved clinically. However, she developed hypothyroidism, for which she received levothyroxine therapy and low-grade dermatitis. She continued pembrolizumab 2mg/kg, every 21 days for 1 year. Due to COVID-19 pandemic, she switched her dosage to 4mg/kg, every 42 da. Post two doses during 42 day interval, She developed oral sores.

The woman started receiving nystatin for oral sores, which did not resolve. She continued pembrolizumab therapy, which worsened her oral sores. The lesions appeared on her lips and tongue. Subsequent analyses were suggestive for presence of autoimmune lichen planus. Therefore, she started receiving hydrocortisone/lidocaine/nystatin [Akabutu] mouthwash, which initially showed improvement, but her sores continued to worsened. Due to development of skin lesions, she had difficulty in eating.

The woman, withheld pembrolizumab. She received hydrocortisone rinse, due to which, her symptoms worsened. Therapy with prednisone did not improve post discontinuation of steroid therapy. However, she developed keratoacanthoma. Therefore, she received therapy with triamcinolone, metronidazole and clobetasol. She underwent removal of keratoacanthoma. Currently, she has been off pembrolizumab for 5 months, with stable disease. Cutaneous and oral lesions resolved [*not all outcomes stated*].

Preti BTB, et al. Skin Deep: A Fascinating Case Report of Immunotherapy-Triggered, Treatment-Refractory Autoimmune Lichen Planus and Keratoacanthoma. Case Reports in Oncology 14: 1189-1193, No. 2, 16 Aug 2021. Available from: URL: http://doi.org/10.1159/000518313

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