

# Dermatitis bullosa como efecto secundario a pembrolizumab

## Bullous dermatitis as an adverse reaction to pembrolizumab

### CASE REPORT

A 48-year old woman, with a pT3b nodular melanoma of the thigh, diagnosed on 12/2017 remained under surveillance in the dermatology and oncology department. During a medical oncology appointment on 03/2018, a mass was palpated in the left inguinal region, and positron emission tomography-computed tomography (PET-CT) was performed, which revealed a left inguinal conglomerate 24x33mm in size with a standardized uptake value (SUV) of 13; left iliac and pelvic lymph node conglomerate 15mm in size with an SUV of 10. She underwent surgery on 05/2018 with wide excision margins and left iliac-inguinal lymph node dissection, with a histological result of wild type melanoma infiltration, N2 disease. It was considered stage IV disease and immunotherapy with pembrolizumab every 3 weeks was initiated on 07/2018, which was well-tolerated. Re-evaluation PET CT in January and June 2019, showed a complete response to therapy, with no evidence of disease. During an oncology appointment in October 2019, the patient presented with an exuberant rash and blisters with some areas of epidermal detachment on the limbs, chest and back (Figure 1). This adverse event was categorized as bullous dermatitis grade 3: the treatment was discontinued and dexamethasone was initiated: 4mg/8h for 5 days, then 4/12h for 5 days, and then 4mg per day for 10 days. The patient exhibited a gradual improvement in the lesions and full resolution of the skin adverse event (Figure 2). Pembrolizumab was re-initiated 12 weeks after, and the patient continued to show a complete response to therapy, as observed using PET-CT.

Adverse immunotherapy reactions may result when the immune system is activated, leading to an attack on normal organ and tissue function<sup>1-2</sup>. They can affect virtually any organ system, with dermatological, gastrointestinal, and endocrine-related events, being the most commonly encountered<sup>3-4</sup>. They may occur at any time during treatment<sup>3</sup>, with most adverse events occurring during the first few doses<sup>2</sup>. Skin adverse events include rashes; itching, blisters; peeling skin or skin sores; painful sores; or ulcers in mouth, nose, throat or genital area. Among cutaneous side effects, severe skin reactions such as bullous dermatitis can occur in  $\geq 1/100$  patients<sup>5-6</sup>.

There are only 26 reports of the occurrence of bullous dermatitis, with only 3 female patients between 18 and 64 years of age. Only 5 from the 26 have recovered currently. This case highlights the importance of recognizing adverse side effects of immunotherapy including less frequent ones and rapid interventions that can lead to a full recovery.

Adverse immunotherapy reactions are common and can affect virtually any organ system, with dermatological reactions, being some of the most commonly encountered. Bullous dermatitis can occur with anti-programmed cell death-1 treatment, although it is not amongst the common skin effects, it is a clinical entity that needs an accurate clinician judgement. The ideal approach is treatment discontinuation and the use of corticosteroids, with the possibility of immunotherapy reintroduction after condition resolution.

Figure 1. Bullous dermatitis on patient's right arm caused by Pembrolizumab

Figure 2. Patient's right arm after corticotherapy and treatment suspension, 12 weeks after bullous dermatitis diagnose.



### CONFLICT OF INTEREST

The authors declare that there is no conflict of interest in this work.

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This research had no funding sources.

### ETHICAL ASPECTS

All participants submitted a consent form to be included in this study.

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**Alicia da Silva Oliveira, Emílio Macias Bravo**

*Hospital Espírito Santo Évora, Portugal*

Correspondencia: [aliciagsoliveira@gmail.com](mailto:aliciagsoliveira@gmail.com)

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