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CORRESPONDENCE

Melanoma-associated retinopathy after starting immunotherapy for metastatic cutaneous melanoma

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TO THE EDITOR:

We read with interest the review "Paraneoplastic ocular syndrome: a pandora's box of underlying malignancies" by Sarkar et al. [1], proving an overview of paraneoplastic ocular syndromes, including melanoma-associated retinopathy (MAR) [1]. It was highlighted that, although systemic immunotherapy is considered the first-line treatment for MAR, the use of immune checkpoint inhibitors can lead to immune-related adverse events, including MAR [1, 2]. We describe two cases of MAR presented after starting systemic immunotherapy.

Case 1, a 60-year woman, presented with bilateral cloudy vision during maintenance monthly nivolumab monotherapy, started after 4 cycles of ipilimumab/nivolumab, 6 months earlier. Her best-corrected visual acuity (BCVA) was 6/9 and 6/7.5 in the right and left eye, respectively, and ophthalmic examination showed bilateral anterior and intermediate uveitis. Fluorescein angiography showed minimal vasculitis and visual field (VF) test a bilateral generalized constriction, worse in the left eye.

Case 2, a 66-year man, reported positive visual symptoms and blurriness few weeks after the first cycle of ipilimumab/nivolumab. BCVA was 6/12 in both eyes. Ophthalmic examination, macular and disc OCT were unremarkable, whereas the VF showed non-specific defects in the right eye and a generalized constriction in the left eye.

In both patients, electro-diagnostic tests were indicative of MAR, showing electronegative waveform on full-field ERG and markedly attenuated ON b- and normal OFF d- wave components in both eyes (Fig. 1). Retinal autoantibodies were not investigated, as per patients' preference; however, the evidence supporting any MAR-specific antigen is still controversial [1]. Patient 1 reported persistent significant positive visual phenomena, despite the resolution of intraocular inflammation with topical therapy and intravenous steroids performed for concomitant systemic conditions, whereas patient 2 was started on a course of oral steroids with subsequent bilateral improvement of BCVA to 6/6, stable clinical findings but persistent positive visual phenomena. Indeed, local/systemic steroids can be considered a therapeutic option in MAR [3].

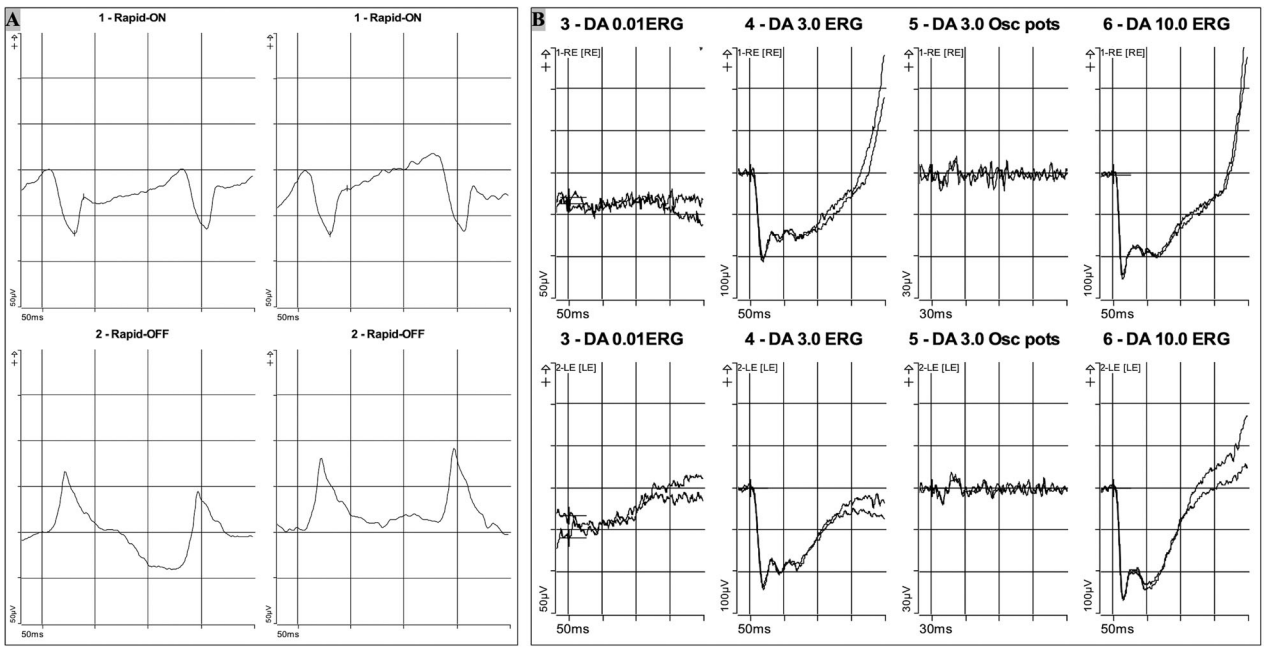

Fig. 1 Electroretinogram of case 1. A markedly attenuated ON b- and normal OFF d- wave components in both eyes; **B** combined rod cone (DA3.0) and responses to high flash (DA 10.0) demonstrate a normal a-wave amplitude but severely reduced b-wave resulting in electronegative waveform on full-field ERG.

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The onset of MAR after starting immunotherapy is uncommon, as demonstrated by only 17 cases previously described [3]. However, due to the variety of symptoms and potential subclinical findings, the incidence could be underestimated [1, 4]. We strongly advice a prompt ophthalmology referral in patients with any visual symptom while on systemic immunotherapy.

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AUTHOR CONTRIBUTIONS

AK contributed to the design of the letter. MF and WA wrote the draft. MF created the figure. All authors provided feedback on the draft, revised the final version, read and approved the final manuscript. All authors agree to be accountable for all aspects of the work.

COMPETING INTERESTS

The authors declare no competing interests.

ADDITIONAL INFORMATION

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