

# Metastatic melanoma treated with talimogene laherparepvec in combination with radiation therapy: a case report

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## Background

- Talimogene laherparepvec (T-VEC), an oncolytic intralesional immunotherapy, is approved for local treatment of unresectable cutaneous or nodal disease in patients with recurrent melanoma.
- TVEC is derived from a genetically modified herpes simplex virus type 1.<sup>1,2</sup>
- Various case reports exploring the role of radiation monotherapy for the management of melanoma have suggested that its use can result in immune system modification and is correlated with disease regression.<sup>5</sup>
- There is limited literature concerning the management of advanced melanoma with T-VEC in combination with radiation.

## Objective

This case report aims to add to existing understanding of patient outcomes after treatment with T-VEC and contribute a novel presentation of T-VEC in combination with radiation therapy.



**Figure 1**  
Patient before initiation of TVEC cycles and radiation therapy



**Figure 2**  
Adverse event during treatment with radiation therapy



**Figure 3**  
Status post radiation therapy and TVEC cycle 1



**Figure 4**  
Status post TVEC cycle 6.



**Figure 5**  
Status post TVEC cycle 11

## Case Report

- The patient is an 88-year-old female with a desmoplastic melanoma of the right temple status post wide local excision with sentinel lymph node biopsy.
- Ulcerated desmoplastic melanoma localized to the right anterior skull base
  - 1.5 cm in greatest dimension
  - Breslow thickness of 7.06 mm
  - No evidence of tumor-infiltrating lymphocytes
- Disease stage: pT4bpN0Mx with a negative BRAF mutation status
- No evidence of metastatic disease on the two PET scans
- Management plan: total of 12 TVEC injection cycles during a 7-month period
- She received 5 treatments of stereotactic ablative radiotherapy (SABR) throughout 2 weeks
- Final PET scan demonstrated response to treatment and no evidence of adenopathy or distant metastatic disease observed
- Patient had a complete clinical response

## Conclusion

- Due to the anatomic location of this patient's recurrent melanoma, excision was not indicated, as such the patient was treated with a combination of TVEC and radiation therapy, resulting in a complete clinical response.
- T-VEC has been described to be well tolerated, with high antitumor response rates.<sup>2</sup>
- This case demonstrates utility of T-VEC clinically and supports the synergistic effects seen in mouse models.<sup>8</sup>
- This patient's impressive response highlights the utility of TVEC and radiation as a valuable treatment option that should be considered in the setting of advanced localized disease as an alternative or adjuvant to surgical intervention, and especially in unresectable localized recurrent melanomas.

## References

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*\*No disclosures need to be declared for this case report.*