Complete Response to Talimogene Laherparepvec and Cetuximab in a Renal Transplant Recipient with Metastatic Cutaneous Squamous Cell Carcinoma

Neelia E. Abadi[1]; Kevin Zhu, MD[2]; Jessica Cintolo-Gonzalez, MD[2]; Mirabelle B. Sajisevi, MD[2]; Rohit Singh, MD[2]

[1]University of Vermont Larner College of Medicine, Burlington, VT, USA | [2]University of Vermont Medical Center, Burlington, VT, USA

University of Vermont Larner College of Medicine

BACKGROUND

- Cutaneous squamous cell carcinoma (cSCC) is associated with significant morbidity in immunosuppressed patients.[1]
- Incidence in renal transplant recipients is ~50x greater than in the general population.[2]
- Checkpoint inhibitors are the first-line systemic therapy for advanced cSCC but carry substantial allograft-rejection risk.[1]
- Cetuximab (EGFR inhibitor) is a systemic alternative, used alone or with chemotherapy.[3]
- Talimogene laherparepvec (T-VEC): FDA-approved oncolytic herpesvirus for melanoma, with off-label response reported in Merkel cell carcinoma and cSCC.[4-6]
- Data on T-VEC in immunocompromised patients and in combination regimens remains limited.[7-9]
- We report a renal transplant recipient with recurrent metastatic cSCC achieving complete radiologic and clinical response with combined cetuximab and T-VEC.

CASE TIMELINE

81-year-old male with history of renal transplant for ADPKD, on tacrolimus and mycophenolate mofetil, who presented with recurrent metastatic cSCC.

Age 68 (5 years post-transplant)
First cSCC, right cheek → Mohs surgery

Following years
7 additional cSCC sites requiring Mohs or excision

Age 79
Cervical nodal metastasis from prior left-ear cSCC → neck dissection (+ nodes and extranodal extension) → adjuvant radiation

3 months post-radiation
PET-CT: no evidence of active disease

+10 months
New lesion at dissection site; biopsy confirms dermal metastasis from original left ear cSCC

Systemic therapy started
Cetuximab 500 mg/m² IV every 2 weeks

Cycle 4 of cetuximab
New satellite lesions with concern for disease progression and cetuximab resistance

Cycle 6 onward
Intralesional T-VEC added: 7 injections over 3 months

Outcome
Complete clinical & radiologic response. Disease-free at 7 months off treatment

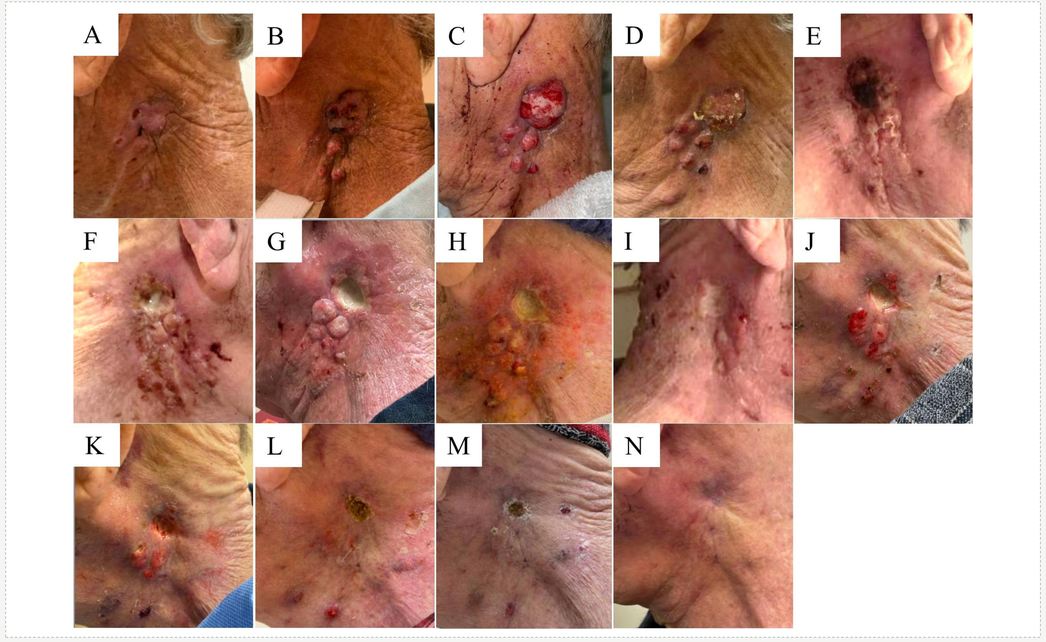


Figure 1. Clinical progression and response to therapy.
Serial clinical photographs demonstrating evolution of the left neck cSCC from baseline presentation through treatment with cetuximab and intralesional T-VEC. The first and second doses were separated by three weeks, followed by two-week intervals between subsequent doses. (A) Initial presentation. (B) Lesions at time of cetuximab initiation, one month following diagnosis. (C-D) Clinical progression during the first two months of cetuximab therapy, with evolving satellite lesions. (E-F) Patient-captured photographs 10 days after the first T-VEC injection, with evidence of spontaneous detachment of the overlying necrotic eschar, with concurrent reduction in the size of the underlying nodule. (G-M) Regression of remaining lesions at the second through seventh T-VEC injections, with (I) one patient-captured photograph between the third and fourth injection. (N) Complete clinical resolution 10 days after the final injection.

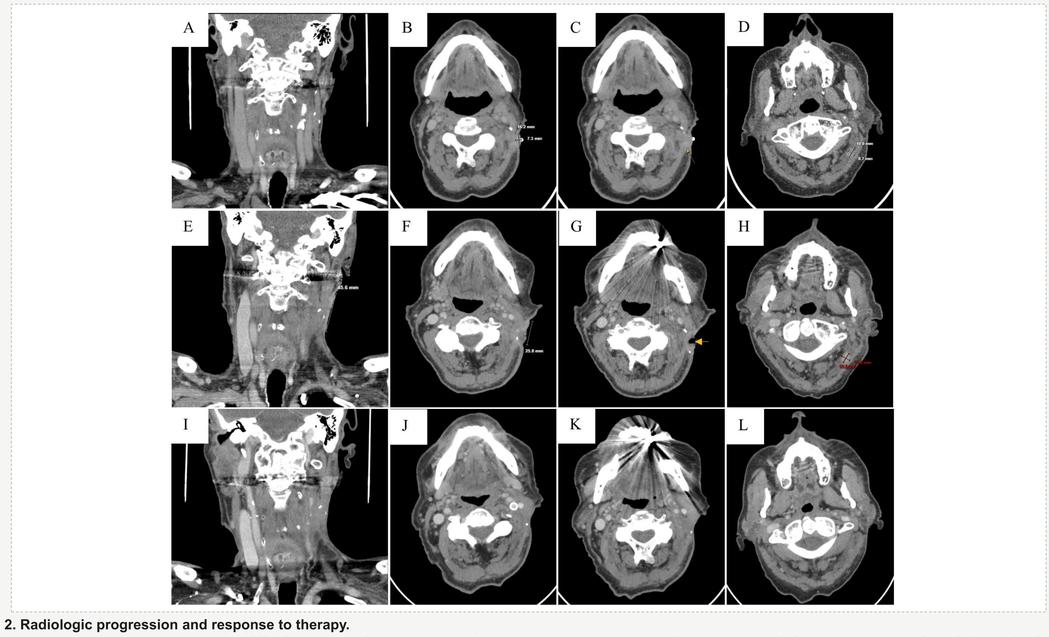


Figure 2. Radiologic progression and response to therapy.
Contrasted-enhanced computed tomography (CT) of the neck soft tissues obtained at three timepoints during the disease course. (A-D) Imaging at time of initial diagnosis. Coronal image (A) of the index lesion. Axial image (B) demonstrates a 1.6 x 0.7 cm lesion of the dermis in the left neck, in the region of prior neck dissection. Axial image (C) demonstrates loss of the intervening fat plane (arrow) between the lesion and the underlying levator scapulae muscle. Axial image (D) highlights a 10 mm nodule between the left suboccipital muscles, concerning for a nodal metastasis. (E-H) Imaging obtained three days after initiation of T-VEC. Coronal image (E) and axial image (F) demonstrate progression of disease with interval enlargement of the cutaneous lesion, measuring 2.6 x 4.6 cm. In axial image (G), there is evidence of cavitation within the central portion of the lesion, likely the epicenter of recurrence (arrow). Axial image (H) shows an intervally larger, ill-defined 1.2 cm enhancing nodal metastasis between the left suboccipital muscles. (I-L) Imaging performed six days after the final T-VEC injection, with marked interval response in the coronal (I) and axial (J-L) views. Skin thickening and tissue thickening is less prominent, with no new soft tissue masses or pathologically enlarged nodes.

TREATMENT

- Cetuximab: 500 mg/m² IV every 2 weeks.
  - Well tolerated; acneiform rash responsive to topical clindamycin.
- Sirolimus trialed for secondary cSCC prevention and discontinued after UACR rose.[7] Tacrolimus monotherapy continued with reduction in UACR.
- T-VEC: 7 intralesional injections over 3 months. Initial treatment at 10^6 PFU/mL, subsequent treatments at 10^8 PFU/mL.
  - Transient fever/flu-like symptoms after first injection, consistent with known toxicity.
- Cetuximab held after 14 cycles (patient preference, fatigue, and no active disease).

OUTCOME

- 1 week after the first T-VEC injection, the overlying necrotic eschar spontaneously detached, with marked reduction in the underlying lesion.
- Complete epithelialization 2 weeks after the final injection.
- CT: resolution of cutaneous disease, no abnormal lymphadenopathy.
- Remains disease-free 7 months off all treatment.

DISCUSSION

- To our knowledge, first reported case of combination T-VEC + cetuximab in a renal transplant recipient with metastatic cSCC.
- Prior T-VEC + panitumumab data (n = 5, terminated early, only summary safety results reported) in metastatic cSCC are limited. Because cetuximab was continued alongside T-VEC in our case, we cannot attribute the response to either agent or infer synergy.[10]
- Response in both cutaneous lesions and a non-injected lymph node suggests a systemic immune effect.
- Transient renal allograft dysfunction following sirolimus initiation was considered independent of T-VEC. Supports T-VEC safety in chronically immunosuppressed transplant recipients.

CONCLUSION

This case highlights T-VEC's potential role in unresectable or metastatic cSCC when immunotherapy carries higher risk. Larger prospective studies are needed to further define efficacy and tolerability of T-VEC as an alternative treatment strategy.

REFERENCES

1. Wysong A. Squamous-Cell Carcinoma of the Skin. *N Engl J Med*. 2023;388(24):2262-2273.
2. Krynitz B, et al. Risk of skin cancer and other malignancies in transplant recipients. *Int J Cancer*. 2013;132(6):1429-1438.
3. Cowey CL, et al. Outcomes among advanced cSCC patients treated with systemic therapy. *Cancer Med*. 2020;9(20):7381-7387.
4. Andtbacka RH, et al. Patterns of clinical response with T-VEC in melanoma (OPTiM). *Ann Surg Oncol*. 2016;23(13):4169-4177.
5. Slatton J, et al. Evaluation of T-VEC for advanced nonmelanoma skin cancers. *Ann Surg Oncol*. 2026.
6. Stratton DB, et al. Phase 2 study of T-VEC in lower-risk invasive cSCC. *J Am Acad Dermatol*. 2026;94(3):859-866.
7. Miller M, et al. Use of T-VEC to treat cSCC in a renal transplant patient. *Case Rep Dermatol*. 2023;15(1):99-104.
8. Che Y, et al. Resolution of metastatic neck nodes after intranodal T-VEC. *JAAD Case Rep*. 2024;46:92-94.
9. Lebhar J, et al. Liver transplant patient with in-transit SCC treated with T-VEC. *JAAD Case Rep*. 2023;40:53-57.
10. Berger AC. Talimogene laherparepvec and panitumumab for the treatment of locally advanced or metastatic squamous cell carcinoma of the skin. ClinicalTrials.govidentifier NCT04163952. Updated January 23, 2026.