

# Bilateral Thalamic Lesions Associated With Atezolizumab-Induced Autoimmune Encephalitis

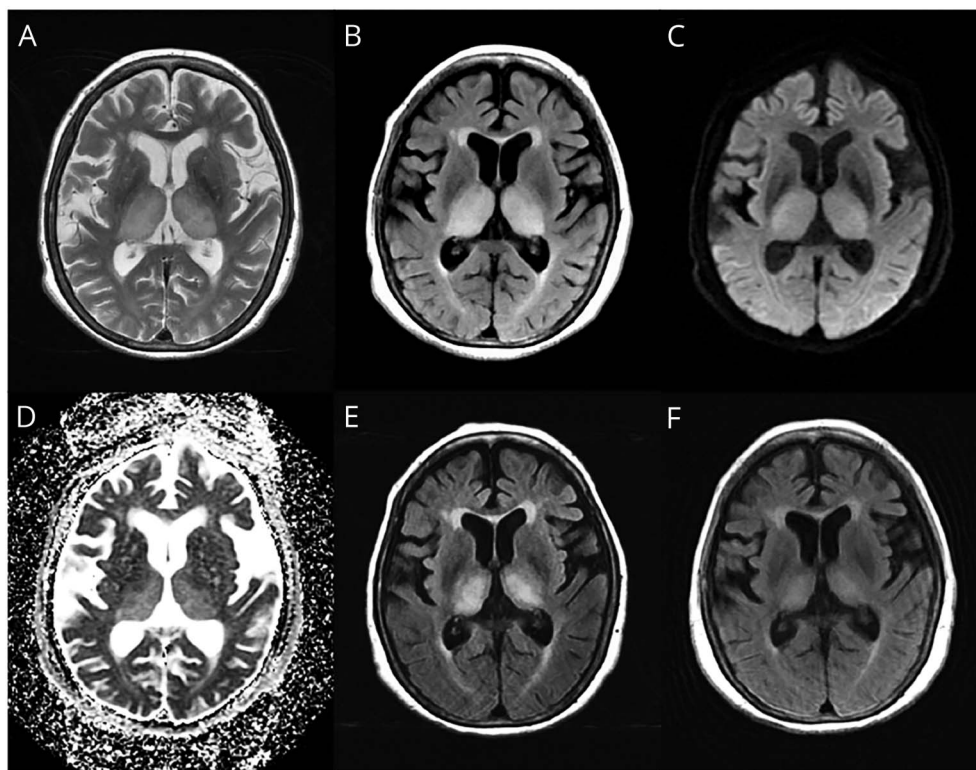
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**Figure** Reversible Thalamic Lesions With Atezolizumab-Induced Encephalitis Before and After Immunotherapy



MRI initially showed high signals bilaterally in thalamus on T2-weighted (A), fluid-attenuated inversion recovery (B), and diffusion-weighted images (C), and apparent diffusion coefficient map (D). Lesion size reduced on fluid-attenuated inversion recovery images 3 (E) and 7 weeks (F) after immunotherapy.

A 72-year-old woman presented with a 6-week history of gait disturbance and mild disturbance of consciousness. For 9 months, she had been treated for advanced non-small cell lung cancer with atezolizumab. MRI revealed symmetrical high signal in the thalamus bilaterally (figure). She did not have evidence of cancer recurrence or metastases. Serum autoimmune antibodies were absent (anti-AQP4, anti-MOG, anti-amphiphysin, CV2, PNMA2 [Ma2/Ta], Ri, Yo, Hu, recoverin, SOX1, titin, zic4, GAD65, and Tr [DNER]). In the CSF, she had high immunoglobulin G index and positive oligoclonal bands but normal myelin basic protein, absent anti-NMDA receptor and anti-MOG antibodies, and no evidence of infection. Cytology was normal. She was diagnosed with autoimmune encephalitis associated with atezolizumab treatment and

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treated with steroids and IV immunoglobulin 9 weeks after the onset of symptoms. The size of the lesions decreased after immunotherapy started, but she remained bedridden.

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### Disclosure

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### Appendix Authors

Name	Location	Contribution
<b>Haruo Nishijima, MD, PhD</b>	Hirosaki University Graduate School of Medicine, Japan	Designed and conceptualized study, analyzed the data, drafted the manuscript for intellectual content
<b>Chieko Suzuki, MD, PhD</b>	Hirosaki University Graduate School of Medicine, Japan	Patient care and acquisition of data, interpreted the data, revised the manuscript for intellectual content

### Appendix *(continued)*

Name	Location	Contribution
<b>Tomoya Kon, MD, PhD</b>	Hirosaki University Graduate School of Medicine, Japan	Patient care and acquisition of data, revised the manuscript for intellectual content
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