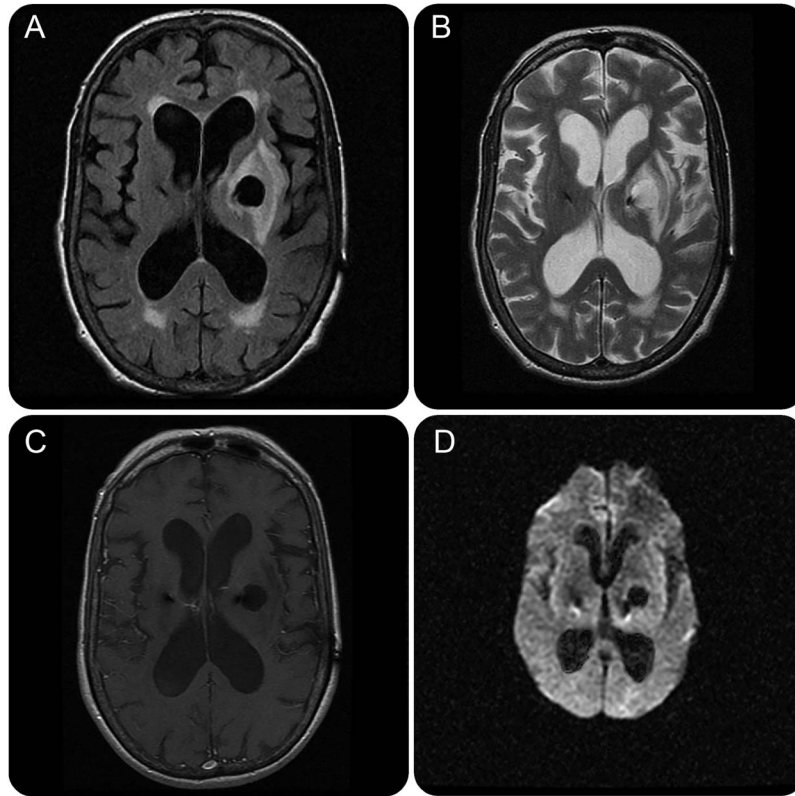


Teaching NeuroImages: Noninfectious cyst as an unusual complication of deep brain stimulation

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Figure 1 Axial fluid-attenuated inversion recovery (FLAIR), T2, postcontrast T1, and diffusion-weighted imaging (DWI)



(A) Axial FLAIR: Cyst is seen adjacent to the DBS lead with surrounding edema. (B) Axial T2: Cyst is visualized adjacent to the DBS lead with vasogenic edema. (C) T1 postcontrast: Absence of contrast enhancement. (D) Axial DWI: Absence of restricted diffusion.

A 73-year-old woman with essential tremor complained of cognitive difficulties, right-sided weakness, and balance problems 3 months after bilateral deep brain stimulation (DBS) surgery. MRI brain showed a cyst adjacent to the DBS electrode on the left side along with vasogenic edema (figure 1). CSF and blood studies did not demonstrate any evidence of infection. Dexamethasone initiation led to a gradual improvement in symptoms and resolution of edema (figure 2).

The tremor did not disappear after cyst development and a higher voltage was required on the left side to control the tremor. Removal of the cyst should be considered when it continues to grow or leads to

undesirable symptoms or lack of therapeutic effect from the DBS.^{1,2}

AUTHOR CONTRIBUTIONS

Dr. Gupta and Dr. Mehta: drafting of the manuscript, examination of the patient, and review of the imaging findings. Dr. Lyons: examination of the patient and review of the images.

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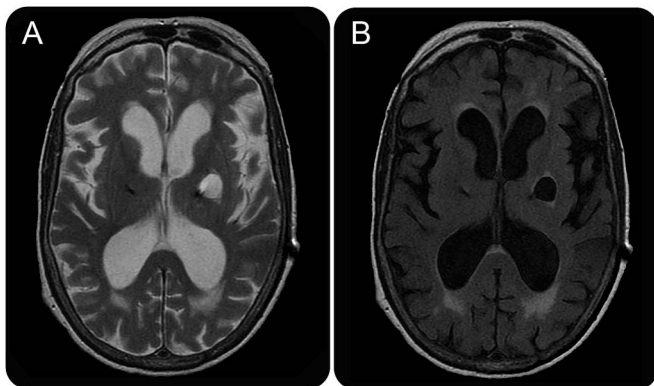
DISCLOSURE

H. Gupta and M. Lyons report no disclosures relevant to the manuscript. S. Mehta has consulted with Allergan Inc., US World Meds, Merz Pharma, and Cynapsus Therapeutics. Go to Neurology.org for full disclosures.

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Figure 2 Axial T2 and fluid-attenuated inversion recovery (FLAIR)



(A) Axial T2: Resolution of the surrounding edema and minimal decrease in cyst size. (B) Axial FLAIR: Resolution of the surrounding edema and minimal decrease in cyst size.

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