Teaching NeuroImages: Neurologic deterioration after atrial fibrillation ablation

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Figure Selected head and chest imaging

Axial head CT showing multifocal infarcts in (A) the left temporal occipital lobe and (B) basal ganglia, (C) CT perfusion (RAPID, Ischemaview, Redwood, CA) showing hypoperfusion in multiple vascular territories, and (D) axial chest CT showing air within the left atrium and left atrial appendage (arrow).

A 68-year-old man presented with fever and altered mental status 4 weeks following an ablation procedure for atrial fibrillation (AF). Head CT revealed multifocal embolic-appearing infarcts. Chest CT revealed air in the left atrial appendage (figure). These findings led to a diagnosis of cardioembolic stroke secondary to septic emboli from an atriopharyngeal fistula (AEF). AEF may occur in up to 0.25% of AF ablations and manifests 1–6 weeks postprocedure with fever, stroke, and/or end-organ damage from septic emboli.¹ Transthoracic echocardiogram and chest CT should be considered to rule out AEF in patients with neurologic decline following AF ablation.^{1,2}

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References

1. Kapur S, Barbhaiya C, Deneke T, Michaud GF. Esophageal injury and atriopharyngeal fistula caused by ablation for atrial fibrillation. *Circulation* 2017;136:1247–1255.
2. Han HC, Ha FJ, Sanders P, et al. Atriopharyngeal fistula. *Circ Arrhythm Electrophysiol* 2017;10:e005579.

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