Teaching Video NeuroImage: Reversible Caudate Changes in a Patient With Post-Pump Chorea

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A 28-year-old woman with no significant family history presented with a 4-week complaint of involuntary movements following a pulmonary endarterectomy requiring deep hypothermic circulatory arrest (Video 1). Brain MRI revealed bilateral caudate T2 hyperintensity, which resolved after 3 months (Figure). Tetrabenazine initially controlled her generalized chorea and was subsequently withdrawn by 6 months with near complete resolution of symptoms. Post-pump chorea is rare, often occurring in children following cardiopulmonary surgery and presenting with several distinct imaging findings\(^1\). Risk factors include circulatory arrest and prolonged deep hypothermia. While the prognosis varies, some patients have a complete resolution of chorea within months\(^1,2\).

Legends:

Video 1. Video demonstrating generalized chorea affecting the face, trunk, and arms 4 weeks following surgery. At 1 year after surgery, involuntary movements were almost completely resolved.

Figure. MRI Brain demonstrating bilateral caudate T2 hyperintensity (A), completely resolved after 3 months (B). Although the mechanism for such findings remain poorly understood, studies have suggested the possibility of mismatch between cerebral blood flow and brain metabolism as a result of rewarming\(^2\).