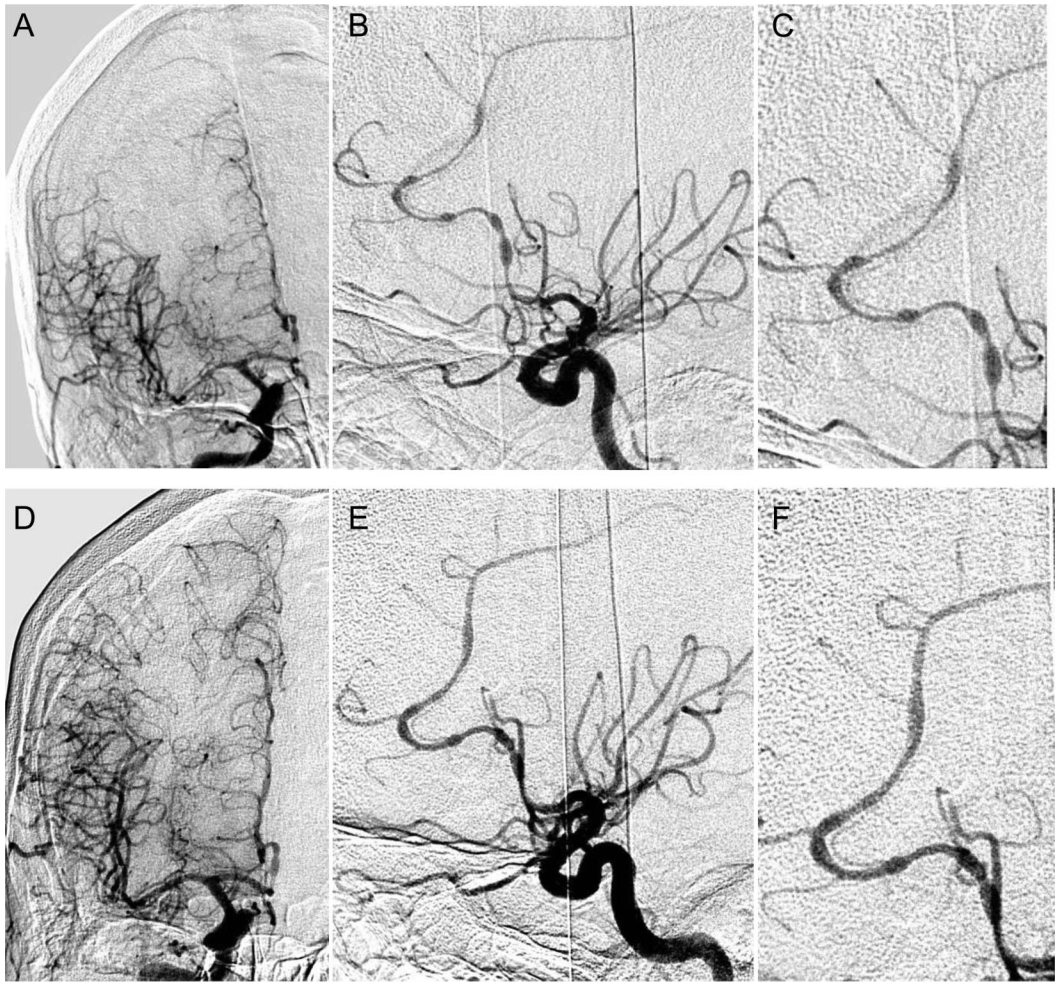
Reversible cerebral vasoconstriction syndrome following carotid stenting

Figure Cerebral angiogram



Catheter-based angiogram shows right anterior cerebral and right middle cerebral artery irregularities (A–C), which markedly improved after administration of intra-arterial verapamil (D–F).

A 60-year-old woman on venlafaxine presented with headache and left-sided weakness 1 month after undergoing right common carotid artery stenting. Catheter-based angiogram identified new irregularities of the right anterior cerebral and right middle cerebral artery (figure, A–C). Investigations for vasculitis, including CSF studies, were unremarkable. The vessel irregularities and symptoms improved after administration of intra-arterial verapamil (figure, D–F). Unilateral reversible cerebral vasoconstriction syndrome has previously been described after carotid endarterectomy. The mechanism is unclear; however, it may be due to disturbance of cerebral autoregulation.[1,2] Concomitant use of a serotonin and norepinephrine reuptake inhibitor may have been a predisposing factor.

Amin Aghaebrahim, MD, Ashutosh P. Jadhav, MD, PhD, Yumna Saeed, MD, Ruta Totoraitis, MD, Brian T. Jankowitz, MD, Tudor G. Jovin, MD, Bradley J. Molyneaux, MD, PhD

From the University of Pittsburgh Medical Center, Pittsburgh, PA.

Author contributions: Dr. Aghaebrahim: drafting/revising the manuscript and analysis and interpretation of data. Dr. Jadhav: revising the manuscript and analysis and interpretation of data. Dr. Saeed: analysis and interpretation of data. Dr. Totoraitis: analysis and interpretation of data. Dr. Jankowitz: analysis and interpretation of data. Dr. Jovin: analysis and interpretation of data. Dr. Molyneaux: revising the manuscript and analysis and interpretation of data.

Study funding: No targeted funding reported.

Disclosure: The authors report no disclosures relevant to the manuscript. Go to Neurology.org for full disclosures.

Correspondence to Dr. Molyneaux: moly@pitt.edu

1. Wu TY, Frith RW, Barber PA. Reversible cerebral vasoconstriction following carotid endarterectomy. J Clin Neurosci 2011;18:1725–1728.
2. Ducros A. Reversible cerebral vasoconstriction syndrome. Lancet Neurol 2012;11:906–917.