SUCCESSFUL STENT-RETRIEVER THROMBECTOMY FOR ACUTE CEREBRAL EMBOLIZATION AFTER TRANSCATHETER AORTIC VALVE IMPLANTATION

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HISTORY AND PHYSICAL

An 82-year-old male with symptomatic severe aortic stenosis underwent transcatheter aortic valve implantation (TAVI) using a 26-mm balloon-expandable SAPIEN XT (Edwards Lifesciences, Irvine, California). It was deployed via a transfemoral approach under general anesthesia (Panel A). After extubation, a disturbance of consciousness and paralysis of the left side of his body were detected. We suspected stroke, so we immediately performed magnetic resonance imaging (MRI). MRI revealed occlusion of right middle cerebral artery (MCA).

IMAGING

INDICATION FOR INTERVENTION AND INTERVENTION

We consulted the neuro-intervention team, and they decided to perform cerebral angiography. It showed that the right MCA was occluded at the M1 portion (red arrow, Panel B); therefore the neurovascular team inserted a stent retriever system (SOLITAIRE™ 26x30 mm, Covidien; Irvine, CA), and a piece of tissue was recovered from the stent (Panel C). We recanalized the right MCA (red arrow, Panel D), and the estimated total ischemic time was under 2 hours. Pathological findings
showed that the obstructing material was intimal fibrous plaque derived from aortic wall (Panel E). After intervention, the paralysis dramatically improved. He was discharged from our hospital on foot.

**LEARNING POINTS OF THE PROCEDURE**

The incidence of peri-procedural stroke in TAVI has gradually decreased with the introduction of new TAVI devices. However, once stroke occur, the clinical course is usually poor. Therefore, cooperation with stroke care team and early invasive approach for unexpected embolization make it possible to minimize damage to the patients as well as using a filter device during the procedure to prevent further embolization.