# Teaching Neuro*Image*: Subclavian steal syndrome

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VIDEO

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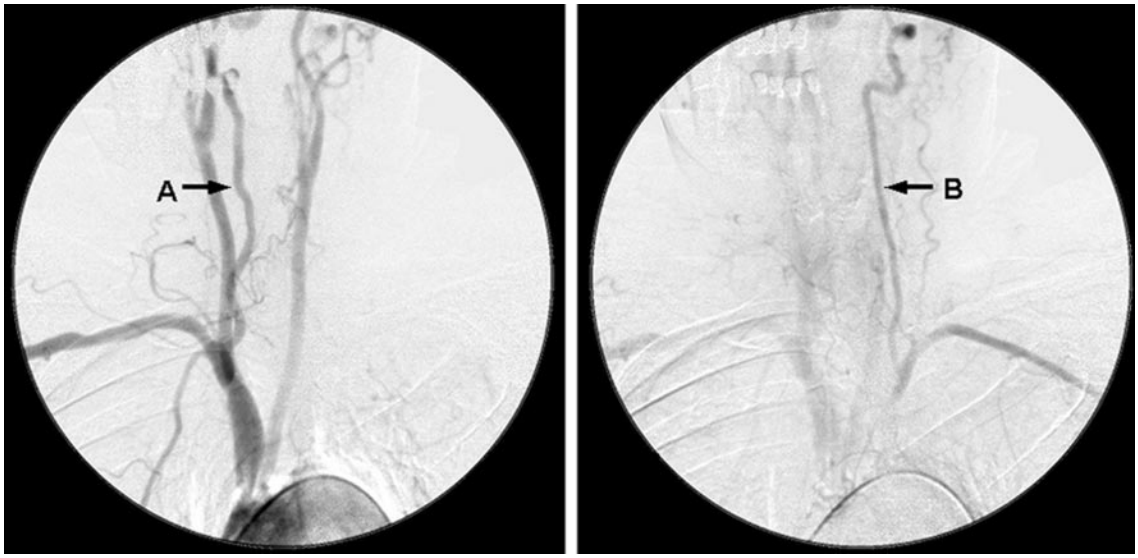
**Figure** Cerebral angiography




Cerebral angiography reveals anterograde flow in the right vertebral artery (A) and delayed, retrograde flow through the left vertebral (B). There is complete occlusion of the proximal left subclavian artery (C, video). There is no evidence of additional stenoses. Attempts to recanalize the subclavian artery with angioplasty via femoral and brachial artery approaches were unsuccessful.

A 65-year-old woman presented with recurrent episodic vertigo lasting hours, accompanied only by headache. While golfing, she experienced transiently blurred vision. She denied arm claudication. Blood pressure was 160/78 in the right arm and 140/65 in the left arm. The left radial pulse was diminished. Cranial nerves, strength, sensation, and coordination were normal. Maneuvers to provoke symptoms were not attempted. MR angiography revealed an occlusion in the proximal left subclavian artery. Digital subtraction angiography was performed (see figure and video).

Proximal occlusion of the subclavian artery causes retrograde flow through the ipsilateral vertebral artery.[1] Insufficient compensation by other arteries may result in posterior circulation ischemia, as in this case. However, many cases of "subclavian steal" may be asymptomatic. In these cases, invasive therapy should be withheld.[2]

## REFERENCES

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2. Bornstein NM, Norris JW. Subclavian steal: a harmless haemodynamic phenomenon? Lancet 1986;2:303–305.

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