An embolic bow hunter’s stroke associated with anomaly of cervical spine

A 16-year-old boy was admitted because of repeated stroke. CT and CT angiography showed abnormalities of cervical spine and left vertebral artery (VA) (figure 1). Cerebral angiography demonstrated that his left VA barely flowed on neck flexion, and thrombotic translucencies indicating thrombus were observed at the stenotic site (figure 2). Transcatheter coil embolization of the left VA was performed, and he has had no recurrences for 10 months. Hemodynamic brain ischemia associated with neck movement was known as bow hunter’s stroke. Abnormal cervical spine can obstruct VA and cause embolic bow hunter’s stroke through thrombus formation at the occluded site.

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Figure 2  Cerebral angiography

(A) The left vertebral artery is occluded in the neutral head position. (B) The left vertebral artery barely flows on maximum head flexion. Thrombotic translucencies are observed just distal to the stenotic site (arrow).
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