Dominant vertebral artery occlusion during ipsilateral head tilt

Figure Dynamic cerebral angiography

Dynamic cerebral angiography shows patent left vertebral artery in the neutral position (A), which is completely occluded at the atlantoaxial junction during head tilt to the left (B).

A 29-year-old man had paroxysmal vertigo, tinnitus, and visual blurring during head tilt to the left. During leftward head tilt, there was downbeat nystagmus with small leftward horizontal and torsional components (video on the *Neurology*[®] Web site at www.neurology.org). Horizontal head rotation did not elicit nystagmus. Magnetic resonance angiography revealed a hypoplastic right vertebral artery (VA). Dynamic angiography during left head tilt documented occlusion of the left VA at the atlantoaxial junction (figure). Cervical CT showed no bony abnormalities. Aspirin was started with instructions to avoid head tilt. Most patients compress the dominant VA with horizontal head rotation to the opposite side,^{1,2} but ipsilateral head tilt may also cause dominant VA occlusion.

J.-H. Choi, MD, M.-J. Kim, BSc, T.-H. Lee, MD, I.S. Moon, MD, K.-D. Choi, MD, Busan; J.S. Kim, MD, Bundang, Korea

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Address correspondence and reprint requests to Dr. Kwang-Dong Choi, Department of Neurology, College of Medicine, Pusan National University, 1-10 Ami-dong, Seo-gu, Busan, 602-739, Korea; kdchoi@medimail.co.kr

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