A 56-year-old woman with a history of uncontrolled hypertension, hyperlipidemia, and tobacco use developed sudden bilateral hearing loss preceded by one week of persistent vertigo. Physical examination demonstrated saccadic pursuit with spontaneous bilateral horizontal and vertical down-beating nystagmus, profound bilateral sensorineural hearing loss (bSNHL) confirmed by audiogram, and truncal ataxia. Neuroimaging showed occlusion of the right vertebral artery, basilar artery, and near-occlusion of bilateral anterior inferior cerebellar arteries (AICAs) (Figure 1) causing acute/subacute ischemic strokes (Figure 2). AICAs give rise to internal auditory arteries, almost a sole blood supply to inner ear, and supply anterior part of cerebellum, middle cerebellar peduncle, and flocculus. Sudden bSNHL is a rare phenomenon representing <5% of all acute SNHL cases dominated by unilateral presentation. In contrast to the latter, sudden bSNHL represents a medical emergency warranting immediate evaluation for life-threatening and/or reversible causes, such as stroke, autoimmune disorders (e.g., Susac, Cogan syndromes, and scleroderma), and drug toxicities (e.g., gentamicin).1

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Occlusion/hypoperfusion of AICA in isolation or as part of vertebrobasilar ischemia can lead to sudden SNHL.²

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**References**
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