

Densely calcified anterior cerebral arteries

Case illustration

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This 70-year-old woman underwent skull x-ray examination for minor facial trauma. The patient was neurologically normal without any remarkable medical history. The results of laboratory tests were normal, including serum calcium and parathyroid hormone levels.

Skull x-ray films revealed dense calcification in the frontal region, seemingly located along the course of the anterior cerebral arteries (ACAs) (Fig. 1 *left*). Three-dimensional computerized tomography (CT) scanning also demonstrated dense calcification (Fig. 1 *center*). There was normal blood flow in the ACAs demonstrated on magnetic resonance (MR) angiography (Fig. 1 *right*). This patient did not experience any neurological events during the 5-year follow-up period.

Although intracranial arteries are often atherosclerotic, calcification of the intracranial vessels is not a prominent feature of the process.⁵ Calcification of the intracranial carotid siphon and the vertebral artery is often observed in the geriatric population, but calcification of the ACA, middle cerebral artery, and basilar artery is rare.¹⁻⁵ To our knowledge, densely calcified cerebral arteries have

not been reported in the literature. This case illustrates that such dense calcification can occur without compromise of blood flow within the calcified cerebral arteries.

References

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FIG. 1. *Left*: Lateral skull x-ray film revealing calcified ACAs. *Center*: Three-dimensional CT scan (viewed from the left side) confirming dense calcification of the ACAs around the genu of the corpus callosum. *Right*: Lateral MR angiogram demonstrating the patient's bilateral ACAs.

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