Correlating microscopic findings with B-mode ultrasound in cervical artery dissection

Figure 1 B-mode ultrasound, right common carotid artery (longitudinal section)

The red arrows show the intramural hematoma; the yellow arrow marks the intima-media complex, which is intact.

Figure 2 B-mode ultrasound, right common carotid artery (cross-section)

Cross-section shows the half-moon-shaped hematoma, narrowing the arterial lumen.

In a previous study, microscopic findings in superficial temporal artery specimens in patients with cervical artery dissections suggest that the pathophysiologic mechanism is an expanding hematoma in the medial–adventitial border arising from the vasa vasorum.¹ The hematoma is half-moon-shaped and can be visualized by T1-weighted fat-saturated MRI.²

I report a 57-year-old patient with dissection of the truncus brachiocephalicus and involvement of the right common and internal carotid arteries. In this case, the intramural hematoma was visible by B-mode ultrasound (figures 1 and 2) and supports the assumption of medio–adventitial bleeding, since the intima–media complex is unaffected.

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