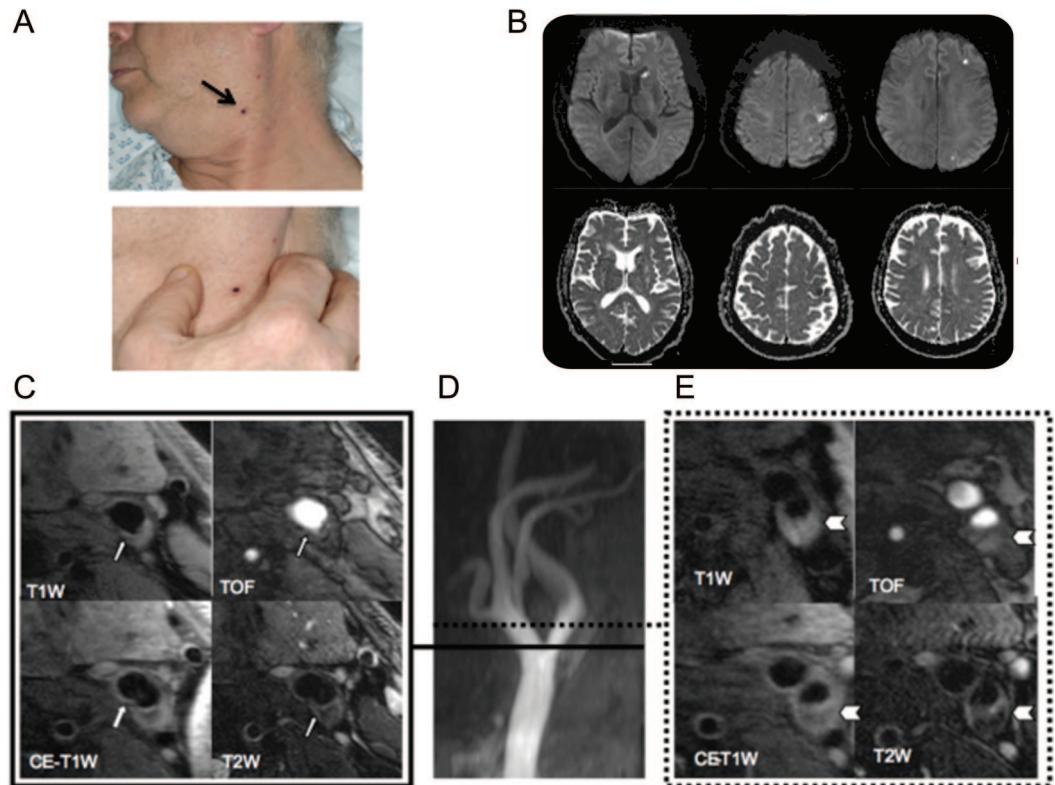


Stroke while squeezing a pimple

Traumatic rupture of a vulnerable carotid artery plaque

Figure Physical examination and neuroimaging



(A) Manipulation of the skin lesion. (B) Ischemic infarcts in the left middle cerebral artery/anterior cerebral artery territory (diffusion-weighted MRI and corresponding apparent diffusion coefficient maps). (C, E) Axial images (T1-weighted, time-of-flight, CE-T1-weighted, T2-weighted) show an eccentric atherosclerotic lesion with a necrotic core, fresh intraplaque hemorrhage (E, chevron), and an irregular luminal surface. The arrow (C) points to a hyperintense region on the time-of-flight images, which is consistent with juxtaluminal hemorrhage due to a rupture of the fibrous cap. (D) Lumen reduction of 20%–30% of the left internal carotid artery on time-of-flight images.

A 63-year-old man, after squeezing a skin lesion in the left cervical region (figure, A), developed right hand weakness. Cranial MRI displayed multiple ischemic lesions in the left anterior circulation (figure, B). Plaque imaging revealed a nonstenosing complicated AHA type VI plaque in the left internal carotid artery (ICA) near the site of manipulation (figure, C–E). We hypothesize that the mechanical maneuver transformed a vulnerable plaque with a large necrotic core and a thin fibrous cap into a ruptured plaque with fresh hemorrhage, causing arterio-arterial emboli. In contrast to previous reports of trauma-induced ICA plaque rupture,^{1,2} we provide evidence for a direct trauma to the plaque.

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