Video 1  Side-by-side B-mode and nonlinear contrast mode (amplitude modulation) ultrasound cine loop of a 50-week-old ApoE−/− male mouse during injection of UCA. No physiological abnormalities were observed in the animal during this injection of the UCA. Part of the aortic arch, the beginning of the brachiocephalic trunk, the right common carotid, the right carotid bifurcation and the right salivary gland are visible. After UCA (100 μL) was administered via the left jugular vein cannulation, it entered the brachiocephalic trunk from the aortic arch, and then traveled upstream, reaching the right common carotid and carotid bifurcation. Eventually the salivary gland was perfused with UCA, and then the veins, such as the right jugular vein, were filled with UCA (see Video 1 for details of anatomy).

Video 2  B-mode ultrasound cine loop of a 50-week-old ApoE−/− male mouse during injection of αvβ3-integrin antibody (200 μL), 42 min after first injection of the UCA. A sudden decrease in the right common carotid pulsation followed by vessel constriction was observed (starting around frame number 200). (Fig. S1)

Video 3  Side-by-side B-mode and nonlinear contrast mode (amplitude modulation) ultrasound cine loop of a 50-week-old ApoE−/− male mouse during injection of another bolus of UCA (100 μL), 30 min after when the event was observed (Video 2). During the first 5 s after arrival of the UCA in the aortic arch, hardly any microbubbles passed through the occluded area in the brachiocephalic trunk. Then, microbubbles slowly started to pass through and reached the right common carotid in the next 10 s. Strikingly, flow through the salivary gland was not restored (see Video 1 for details of anatomy).

Supplementary Material

Fig. S1  Intrusion of erythrocytes into the plaque in the lesions in the right subclavian artery right after the bifurcation from the brachiocephalic trunk.

Fig. S1  Intrusion of erythrocytes into the plaque in the lesions in the right subclavian artery right after the bifurcation from the brachiocephalic trunk.