

Online supplemental material

Title: Figure 4

Supplemental material for: Role of multi-parametric ultrasound in transient perivascular inflammation of the carotid artery (TIPIC) syndrome.

Description: Supplemental material, Figure 4, for “Role of multi-parametric ultrasound in transient perivascular inflammation of the carotid artery (TIPIC) syndrome.” by Rafailidis V, et al. in *Ultrasound*.

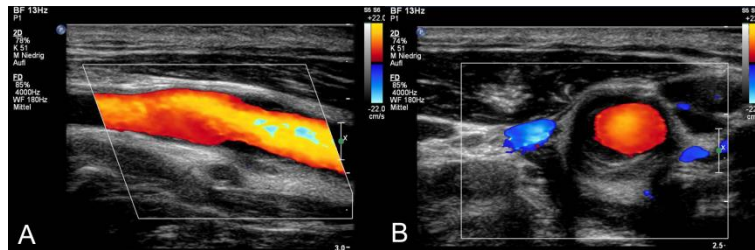


Figure 4: A 52-year old male patient presented with pain and tenderness on palpation during the last 3 days located at the region of the left carotid bifurcation. He had no cardiovascular risk factors and did not remember any previous trauma of the neck. Based on the clinical presentation and the results on standard ultrasound imaging the diagnosis of transient perivascular inflammation of the carotid artery (TIPIC) syndrome was made. B-mode ultrasound imaging using a 5-17MHz linear probe revealed a perivascular hypoechoic thickening at the bulb of the internal carotid artery with outward extension of the vessel in the longitudinal (A) and cross-sectional view (B). The lesion has an onionskin like appearance on B-mode ultrasound. No relevant stenosis of the carotid artery on colour-Doppler ultrasound was found.

Title: Figure 5

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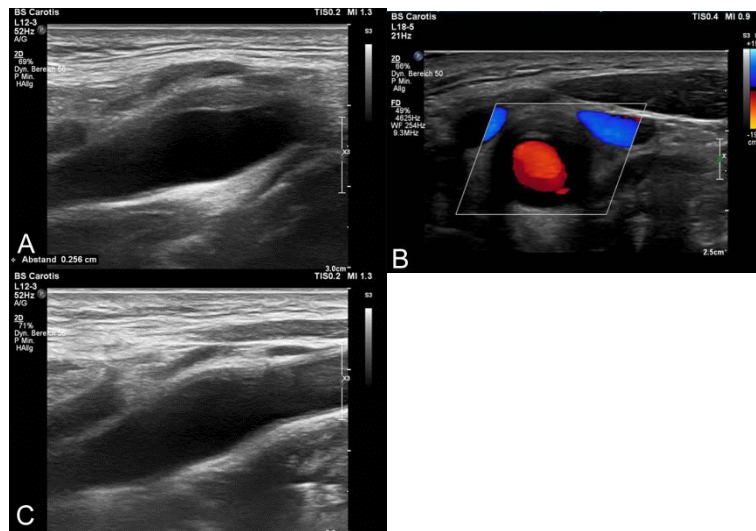


Figure 5: A 28-year old male patient presented with progressive pain during the last two weeks located at the region of the right carotid bifurcation. The pain did not decrease to a course of analgesic drug therapy with paracetamol. Systemic inflammatory markers were normal (CRP 4.3mg/L, ESR 4mm/1h, leucocyte 5.9g/L). Based on the clinical presentation and the results on standard ultrasound imaging the diagnosis of transient perivascular inflammation of the carotid artery (TIPIC) syndrome was made. B-mode ultrasound imaging using a 18-5MHz linear probe revealed a perivascular hypoechoic thickening with an onionskin like appearance at the carotid artery bifurcation in the longitudinal view (A) and in the cross-section view (B) without stenosis on colour Doppler ultrasound. After a course of non-steroidal anti-inflammatory drug of 7 days the patient was asymptomatic. A follow-up ultrasound study after 3 weeks of the carotid artery revealed a clear resolution of the perivascular lesion (C).

Title: Figure 6

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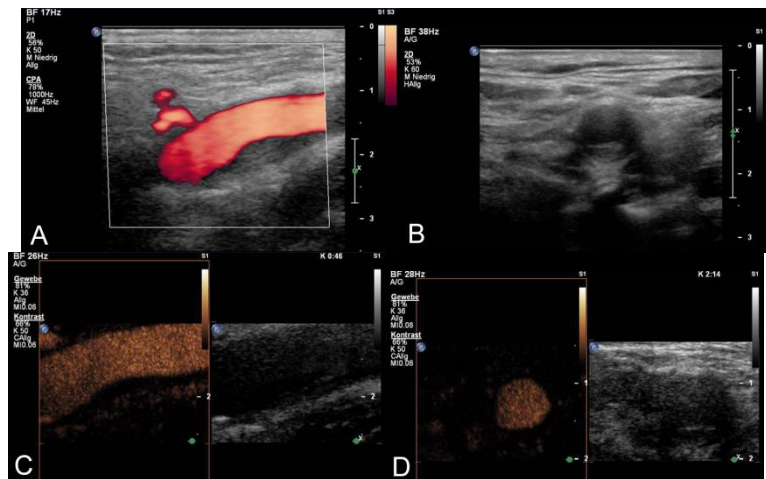


Figure 6: A 62-year old male patient with known aplastic anemia with thrombocytopenia (platelet count 18,000/microL) and no cardiovascular risk factors presented with acute pain starting 8 days ago located at the region of the left carotid bifurcation. He did not remember any previous trauma of the neck. B-mode ultrasound imaging using a 3-9MHz linear probe revealed an intraluminal hypoechoic thickening at the far wall of the left distal common carotid artery in the longitudinal (A) and cross-sectional view (B). No relevant stenosis of the carotid artery on power-Doppler ultrasound was found (A). After a bolus injection of 2.5ml Sonovue™ the lesion in the longitudinal (C) and transversal view (D) revealed no microbubbles within intraluminal lesion on CEUS and some adventitial vasa vasorum in the outer adjacent vessel wall suggesting a non-vascularized intraluminal lesion of the vessel wall. Based on the clinical presentation, the course with spontaneous decrease of the lesion after 3 month in the follow-up carotid ultrasound and no vascularization within the intraluminal lesion but vasa vasorum in the adjacent adventitia layer on CEUS, the diagnosis of a spontaneous vessel wall hematoma based on a hemorrhage within the vessel wall of the carotid artery was made.