A 55-yr-old man with end-stage renal disease presented for emergent removal of an infected arteriovenous dialysis graft. This patient had multisystemic disease, including hepatitis C, human immunodeficiency virus, cardiomyopathy, and atrial fibrillation. He also had a history of left internal jugular thrombosis and right common carotid septic pseudoaneurysm, corrected via partial sternotomy. A chest x-ray film taken in the emergency department revealed partial sternotomy wires, but also showed countless metallic fragments distributed throughout the neck (see magnified view in center of x-ray film), chest, and upper arms. These were consistent with broken needle fragments and longstanding intravenous drug abuse. Visual examination of the neck revealed some mild scarring; gentle palpation did not suggest embedded needles. We avoided upper trunk/neck central intravenous access because of two concerns: the risk to the healthcare provider from the sharp needles, and the possibility for dislodgement/embolization of an intravascular needle.

Findings of retained needles in patients with a history of intravenous drug abuse have been reported previously, and patients are often asymptomatic. Retained needles due to acupuncture as well as the use of charm needles has also been described.

Healthcare providers should be aware of this association with intravenous drug abuse. This is an additional reason to consider the use of ultrasound guidance for central and deep venous access line placement, and suggests the use of extreme care when examining patients, especially those with a known history of drug abuse. A careful history and examination of x-ray films before central line placement is suggested to identify retained needle fragments.

References