



Case images


Olgu görüntüsü


Iatrogenic radial artery pseudoaneurysm after cardiac catheterization

Kardiyak kateterizasyon sonrası iyatrogenik radyal arter psödoanevrizması

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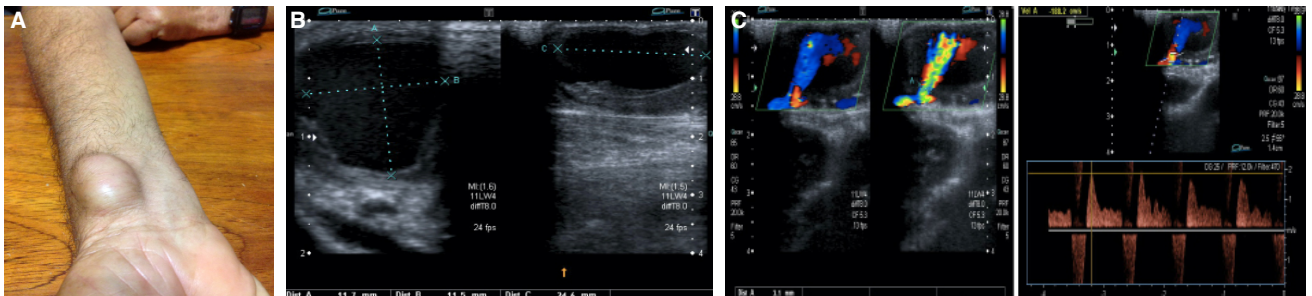
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An arterial pseudoaneurysm can be caused by trauma of a native vessel, usually a penetrating trauma. Although such a complication may

be detected within hours of the time of insult, it may also occur months later. The use of radial access for catheterization and cardiac intervention is becoming increasingly popular, mainly due to a reduction in complications. A 63-year-old man, with a history of type 2 diabetes mellitus and without other apparent risk factors, was admitted for diagnostic catheterization in a preoperative study before an aortic valve replacement. The physical examination revealed a systolic murmur with a decrease in the second heart sound. The blood clotting time was normal. The procedure was performed using the right radial artery and a 6-F system. The sheath was removed and a compressive clamp was applied. Two months later, a physical examination revealed painless, pulsatile swelling at the site of the radial access. The diagnosis of a radial

pseudoaneurysm was confirmed with ultrasonography. The patient was admitted to the hospital for an intracavitary human thrombin injection with fluoroscopic control 48 hours after the diagnosis. Total thrombosis was confirmed with ultrasonography. A radial artery pseudoaneurysm is an extremely rare complication, but is potentially harmful due to the risk of external bleeding, radial artery occlusion, or compression of adjacent structures. It occurs mainly due to inadequate compression of the puncture point, with increased risk in anticoagulated patients or with the use of larger diameter introducers. However, unlike femoral pseudoaneurysms, the treatment is less established. For many years, surgical repair was one of the most used treatments, but the effectiveness of less invasive treatments has recently been described. Mechanical compression may be useful in small pseudoaneurysms, but it must be performed carefully because of the risk of rupture. Although the effectiveness is between 60% and 90%, echo-guided compression repair is time-consuming and painful. It is considered inappropriate in a large or long-standing pseudoaneurysm. An intracavitary thrombin injection has also been described as a treatment alternative, and should be performed with ultrasound control to avoid systemic administration and secondary arterial thrombosis.



Figures– (A) Image of a right radial pseudoaneurysm with an area of pulsatile swelling noted at the radial access site. (B) A two-dimensional Doppler ultrasonography image demonstrating a pseudoaneurysm 11.7 mm x 11.5 mm x 24.6 mm in size. (C) A color Doppler image showing an aliasing waveform with bidirectional flow.