Case (514) Posttraumatic pseudoaneurysm of the distal extremity

Authors A. García De La Oliva, D. De Araujo Martins-romeo, A. Rivera

Domínguez, L. Cueto Álvarez.

Centre H. Virgen Macarena. Sas.

## CASE PRESENTATION

16yo male. Fracture of tibia and perone with intramedullary fixation 13 days ago . Refers a mass in the distal extremity

## DISCUSSION

Posttraumatic pseudoaneurysm (PS)

- Infrequent cause of vascular injury
- Wear off with spontaneous thrombosis or be complicated by compression of neighboring structures, infection or rupture
- Despict the neck between the injured artery and the PS is the key to diagnosis
- Ultrasound: size, lobes and neck length-width
- Color Doppler: Yin-yang sign
- Dupplex Doppler: "to and fro" flow is specific for pseudoaneurysm
- NECT: Intermediate or high density adjacent to PS (breakage is suspected)
- CECT: Smooth and well defined wall except for mycotic PS.Total filling of PS, partial if thrombosis exists. Size, lobes and neck measurements
- Treatment: the size of the PS determines the treatment. Selective percutaneous or endoluminal embolization. Small and asymptomatic PS can have a follow-up.

## CONCLUSION

Posttraumatic pseudoaneurysm es an infrecuent cause of vascular injury. Despict the neck between the injured artery and the pseudoaneurysm is the key to diagnosis.

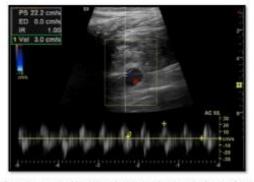
To and fro flow in Duplex Doppler is specific for pseudoaneurysm. CECT and CT angiography is useful for size and neck measurements and for treatment planning



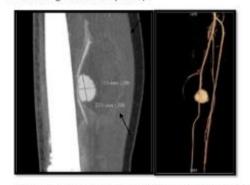
Fracture of tibia and perone with intramedullary fixation



Doppler color imaging. "Yin-yang" sign. Solid mass is a surrounding hematoma (arrow)



Doppler spectral imaging despicting "to and fro" waveform in the neck of pseudoaneurysm



CT angiography and VR. Surrounding hematoma (arrows) and pseudoaneurysm measurements

## **BIBLIOGRAPHY**

- Soto JA, Munera F, Morales C, Lopera JE, Holquin D, Guarin O, et al. Focal arterial injuries of the proximal extremities: helical CT arteriography as the initial method of diagnosis. Radiology 2001;218:188–94.
- Miller-Thomas M, Clark O, Cohen A. Diagnosing Traumatic Arterial Injury in the Extremities with CT Angiography: Pearls and Pitfalls. Radiographics 2005;25:S133-42