IMAGES IN INTENSIVE MEDICINE

Traumatic arteriovenous fistula of the vertebral artery

Fístula arteriovenosa traumática de la arteria vertebral

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A 25-year-old male suffered a fall from a height of 6 m while doing motocross, the left side of the neck impacting directly upon the handlebars. Upon admission the patient reported neck pain, and the physical examination revealed a hematoma in the left neck region. Neurological exploration revealed no focal alterations, with preserved sensory and motor function of the left upper extremity. Considering the clinical stability of the patient, urgent CT angiography of the supraaortic trunks was performed. Left vertebral foraminal fractures were identified from C4 to C7 (Fig. 1A, thin white arrow). At level C5, associated to the vertebral fractures, ingurgitated paraspinal venous structures were noted, with early contrast filling (Fig. 1B and C, thick white arrows), consistent with vertebro-vertebral arteriovenous fistula. Arteriography of the supraaortic trunks (Fig. 1D) showed a left vertebro-vertebral fistula (thin black arrow). The right vertebral artery compensated the flow defect in the contralateral vertebral artery, thereby explaining the lack of patient symptoms (Fig. 1E).

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