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A case of radiological dilemma after a central venous catheter positioning

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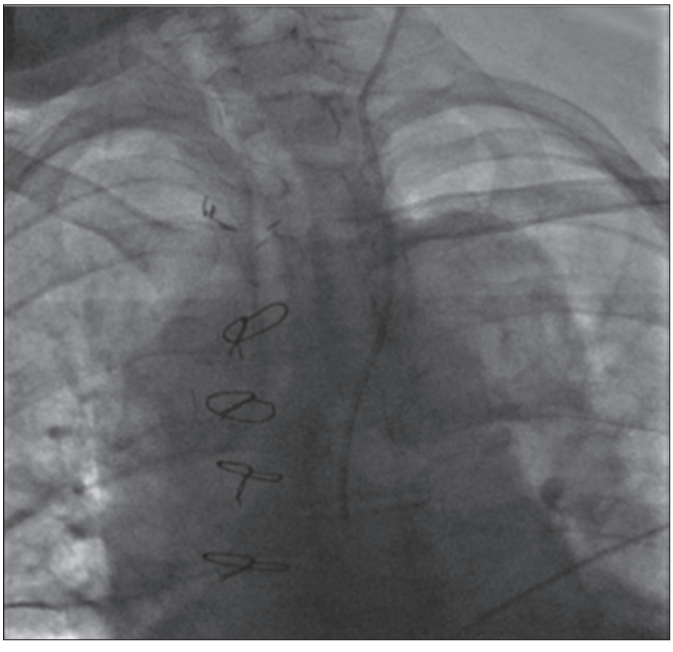
Complication rates associated with attempted central venous catheter (CVC) insertion were reported to be as high as 10 % and, among them, the displacement into a thoracic vein was rarely described (1).
An ultrasound-guided CVC was placed via left trans-jugular access in a patient with a prior Bentall operation for type A aortic dissection.
Due to the impossibility of collecting blood from the three lumens of the CVC, a chest X-ray was performed with the aim at checking the placement of the CVC.
The radiologist suspected the displacement of the catheter into the aorta via a carotid puncture (*Figure 1*).
Then, an angiography was performed which showed the displacement of the CVC into the *left internal thoracic vein* (*Figure 2*).
The catheter was repositioned in the proper position without a new puncture under

Figure 1
Chest X-ray that shows the central venous catheter in uncertain position.



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angiographic guidance (*Figure 3*). The correct position of the catheter was necessary for measuring the central venous oxygen saturation and an appropriate value of central venous pressure.

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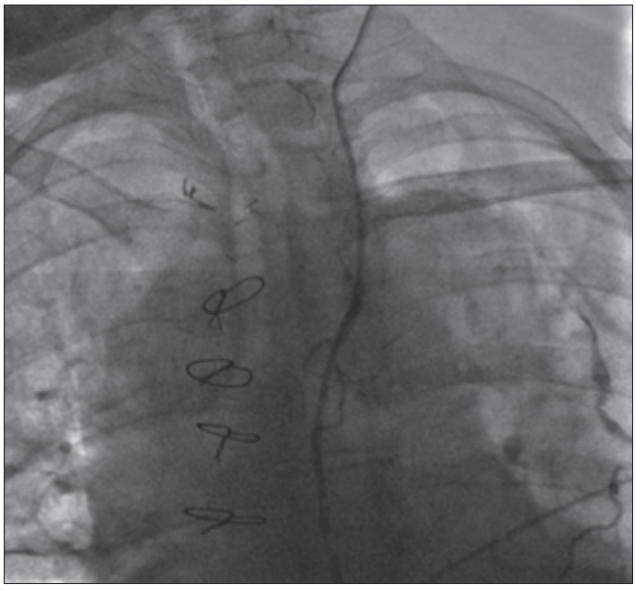

Figure 2
Angiographic examination that shows the placement of the central venous catheter in the left internal thoracic vein.

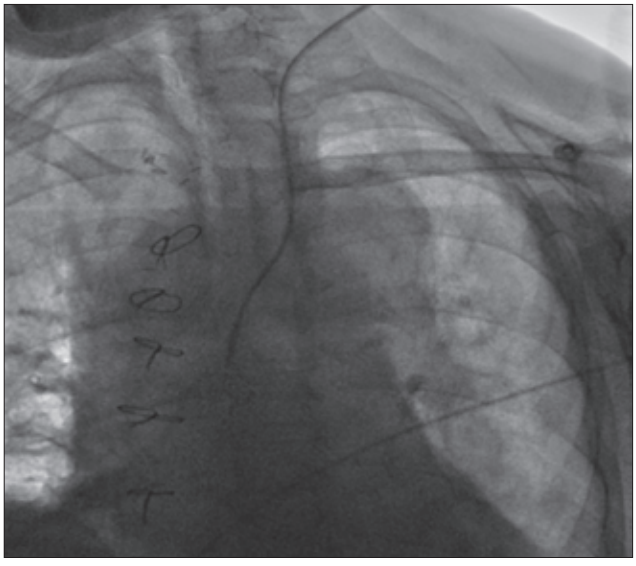

Figure 3
Correct central venous catheter placement.

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