

## MÁ POSIÇÃO DE CATETER IN SITUS SOLITUS COM DEXTROCARDIA

### CATHETER MALPOSITION IN DEXTROCARDIA WITH SITUS SOLITUS

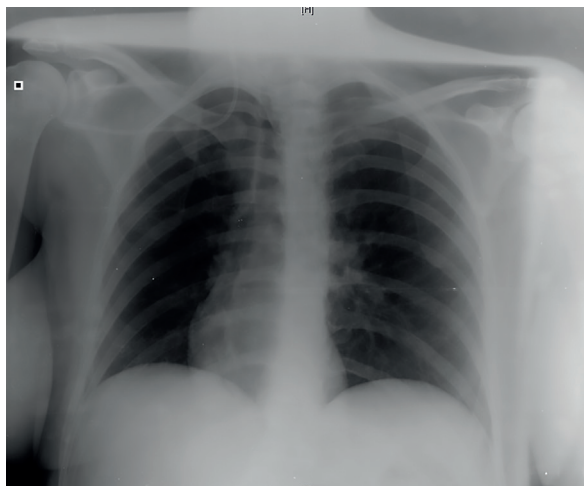
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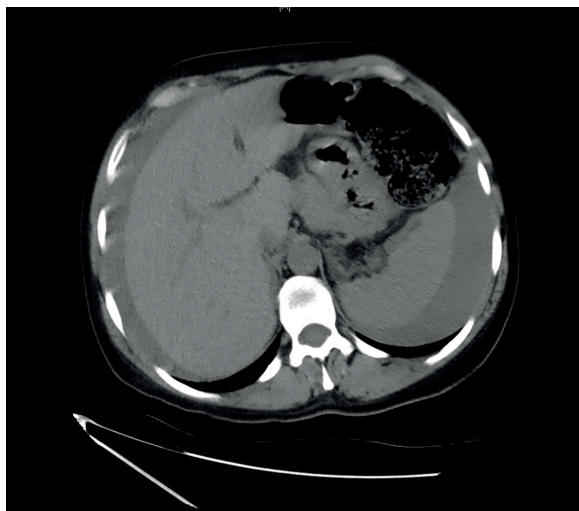
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We are reporting a case of a central vein catheter (CVC) that was inserted at the right subclavian vein, without technical difficulties on a 43 year-old woman. She was admitted with an extensive hemoperitoneum, and lost her peripheral venous accesses due to drugs addiction. The protocol chest x-ray showed a previously unknown dextrocardia and the CVC tip was located in the right jugular internal vein (Figure 1).



**Figure 1** Dextrocardia and CVC tip located in the right jugular internal vein

The catheter was repositioned under fluoroscopic guidance. An ectopic pregnancy rupture was diagnosed. The patient was submitted to an uneventful salpingectomy. Previous abdominal CT scan showed normal visceral position, and so dextrocardia with situs solitus was confirmed (Figure 2).



**Figure 2** Hemoperitoneum, liver and spleen in normal position

### COMMENTS

Dextrocardia is an embryologic malformation characterized by the displacement of the largest axis (base to apex) of the heart to the right side of the chest, with reversion of the apical inclination. The incidence of dextrocardia associated to situs inversus, a situation characterized by the transposition of the abdominal organs, viscera and vasculature in the general population is usually 1:10,000, whereas the one associated with situs solitus, a situation where dextrocardia is associated with normal position of the thoracic and abdominal organs, is 1:30,000 live births<sup>1,2</sup>. Many people are unaware of their unusual anatomy until they seek medical attention for an unrelated condition and only when a radiographic assessment of the patient is undertaken, as in our case the diagnosis is achieved<sup>3</sup>. The individuals are phenotypically unimpaired, and can lead normal healthy lives, without any complications related to their medical condition<sup>4</sup>.

Central venous catheters (CVCs) are commonly utilized to gain vascular access for a varied clinical indications.

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Complications are well known, namely mechanical, thrombotic and infectious<sup>5,6</sup>.

Potential problems that can arise during the implantation procedure include catheter malposition, when the tip of the catheter is not located in superior cava vein, a well-recognized complication. If not addressed it can lead to serious complications<sup>7</sup>.

Malposition increases the risks of catheter wedging, erosion or perforation of vessel walls, local venous thrombosis, catheter dysfunction, and cranial retrograde injection, in which the infusate is directed to the head instead of the central circulation<sup>7</sup>. Reposition is almost always indicated.

In our Service, after CVC placement, a radiography of the chest is the accepted way to confirm that the tip is adequately located and to rule out complications related to the procedure. In 2.8% the cannulation failed at the attempted site.<sup>8</sup>

To our knowledge this is the first report of a CVC insertion at right subclavian vein, with tip malposition in internal jugular vein, in the emergency setting on a patient with situs solitus.

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