

The inappropriate placement of a 25-cm temporary CVC in the right internal jugular vein worsened the tricuspid valve regurgitation, which became evident by the Lancisi's sign" Vigo et al (2017).

Abstract:

INTRODUCTION: Valvular disease and pulmonary hypertension are common conditions in haemodialysis patients. In presence of tricuspid regurgitation, an increased retrograde blood flow into the right atrium during ventricle systole results in a typical modification of the normal venous waveform, creating a giant c-v wave. This condition clinically appears as a venous palpable pulsation within the internal jugular vein, also known as Lancisi's sign.

CASE REPORT: An 83-year-old woman underwent haemodialysis for 9 years. After arteriovenous fistula thrombosis, a right internal jugular vein non-tunnelled central venous catheter (CVC) was placed. About one month later, the patient was referred to our facility for the placement of a tunnelled CVC. Neck examination revealed an elevated jugular venous pulse, the Lancisi's sign. Surprisingly, chest x-ray posteroanterior view showed the non-tunnelled catheter tip in correspondence with the right ventricle. She underwent surgery for temporary to tunnelled CVC conversion using the same venous insertion site (Bellcath®10Fr-length 25 cm to Mahurkar®13.5Fr-length 19 cm). In the postoperative period, we observed a significant reduction of the jugular venous pulse.

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DISCUSSION: The inappropriate placement of a 25-cm temporary CVC in the right internal jugular vein worsened the tricuspid valve regurgitation, which became evident by the Lancisi's sign. Removal of the temporary CVC from the right ventricle resulted in improved right cardiac function. Safe approaches recommended by guidelines for the CVC insertion technique and for checking the tip position should be applied in order to avoid complications.

Reference:

Vigo, V., Lisi, P., Galgano, G. and Lomonte, C. (2017) Lancisi's sign and central venous catheter tip position: a case report. *The Journal of Vascular Access*. July 19th. .

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