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CORRESPONDENCE

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Response to: The role of ultrasound evaluation in central venous catheter exchange

Dear Editor,

We appreciated the letter of Petrocelli and De Caro (1) regarding our article entitled: "Tunneled central venous catheter exchange: techniques to improve prevention of air embolism" (2). The authors emphasized that air embolism during central venous catheterization or its exchange, even though it is a rare complication, it can be life threatening (1). Therefore, we stress the concept that the knowledge of some tips and tricks can help in both mentioned situations.

The first thing to know is the possible vein pathological states (thrombosis, stenosis, occlusion) or any anatomical vascular variations, in every patient who is undergoing central venous catheter placement or replacement (3).

As mentioned in previous papers as possible tips, a light Trendelenburg position or Valsalva maneuver induces an increase of venous blood pressure, making the air impossible to reach the venous system and consequently the pulmonary arteries (4, 5).

Finally, the use of ultrasound guide associated with the fluoroscopy allows the physician to perform the procedure with the continuous monitoring of the various devices (guidewires, introducer and catheters) in order to guarantee the correct placement of the central venous catheter (6).

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