

Totally Implantable Venous Access Devices: Efforts Are Needed to Standardize Procedures to Avoid Complication: Reply

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To the Editor,

We appreciate very much the interest Prof Di Carlo showed for our work, considering his long-standing experience in the field.

The authors state that the 6.5 Fr silicone catheters we used in our study (in 71.4 % of our patients) would carry a higher risk of occlusion and consequently, of vessel thrombosis, because of its small lumen. An 8 Fr polyurethane catheter, according to them, would have caused fewer complications.

We cannot agree with the authors, as in our study catheter occlusion and thrombosis were not correlated. In our series, not all the patients with catheter occlusion subsequently developed vascular thrombosis. We observed catheter occlusions even years after TIVAPs implant, then probably more linked to device management than to the internal lumen diameter of the catheter. Moreover,

regarding the catheter size, Nifong et al. [1] report that the presence of a catheter within the lumen of a vein decreases flow and potentially creates stasis, also suggesting that the size of the catheter impact thrombosis rates. Therefore, probably in our series the number of venous thrombosis would not have decreased using an 8 Fr catheter. This is also confirmed by our multivariate analysis (Table 3), showing that the risk of venous thrombosis is significantly correlated with the use of 8.5 Fr catheters.

Reference

1. Nifong TP, McDevitt TJ (2011) The effect of catheter to vein ratio on blood flow rates in a simulated model of peripherally inserted central venous catheters. *Chest* 140:48–53

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