



Response to: Surgical approach for totally implantable venous access port: a full strategy to avoid the percutaneous approach complications

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We thank our Italian colleagues for their interest in our work [1], and we appreciate their statement in favor of surgical cut-down of the coracobrachial or external jugular vein as an alternative in case open cut-down of the cephalic vein fails. We share their opinion that this is a reasonable approach as it offers the chance to prevent puncture-associated complications such as pneumo- and hemothorax effectively. We congratulate Professor Di Carlo and co-workers for their outstanding work on surgical techniques for implantation of totally implantable venous access ports (TIVAP) [2, 3]. To our knowledge, outcomes of surgical cut-down of the coracobrachial or external jugular vein for TIVAP implantation have not been investigated within a randomized trial design yet. Therefore, high-quality trials on this topic are needed to gain better evidence as a basis for practice recommendations and guidelines. The conclusion drawn from our results [1] is based on meta-analyzed data from randomized controlled trials in which venous puncture was used as second- or third-line strategy. Considering that complication rates were low in our study even when a percutaneous technique was used, our recommendations were justified and evidence based.

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References

1. Klaiber U, Probst P, Hackbusch M et al (2021) Meta-analysis of primary open versus closed cannulation strategy for totally implantable venous access port implantation. *Langenbecks Arch Surg*. <https://doi.org/10.1007/s00423-020-02057-w>
2. Di Carlo I, Barbagallo F, Toro A et al (2005) External jugular vein cutdown approach, as a useful alternative, supports the choice of the cephalic vein for totally implantable access device placement. *Ann Surg Oncol* 12:570–573
3. Di Carlo I, Pulvirenti E, Mannino M, Toro A (2010) Increased use of percutaneous technique for totally implantable venous access devices. Is it real progress? A 27-year comprehensive review on early complications. *Ann Surg Oncol* 17:1649–1656

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