

Considerations on the Application of the RAVESTO Protocol in Intensive Care Patients with Acute Respiratory Failure Requiring Prone Positioning

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INTRODUCTION

In recent years, different standardized protocols have been described for the pre-procedural ultrasonographic detection and evaluation of venous anatomy:

RaCeVa (Rapid Central Venin Assessment), to be used before CICC's insertion;

RaPeVa (Rapid Peripheral Vein Assessment), to be used before PiCCs positioning;

RaFeVa (Rapid Femoral Vein Assessment), designed for assessment of the femoral vein.

These protocols have been developed to identify the best placement site, aiming to reduce complications associated with catheter insertion and management. Approximately three years ago, with the increasing popularity of the bed-side application of the subcutaneous tunnelling technique applied to CICC's placement, a new protocol has been proposed. This protocol describes how to identify the best exit site, based on the patient's specific clinical characteristics and the proportional risk of catheter displacement. The RAVESTO protocol is therefore designed to address various scenarios involving challenging catheter insertion particularly those involving subcutaneous tunnelling as a part of the technique.

THE COVID-19 PERIOD

During the COVID-19 pandemic, new questions have been raised regarding indications, insertion bundles, and the management of complications associated with vascular accesses placement, particularly in ICU patients affected by severe acute respiratory failure requiring prono-supination cycles. In fact, selecting the best catheter exit site is of the utmost importance in this subset of patients.

DISCUSSION

Therefore, as suggested by the RAVESTO protocol, we think that, in this specific subgroup of patients, the best catheter exit site aligns with easily accessible areas, allowing comfortable management of infusion lines, in both supine and in prone position. This approach aims to decrease the risk of infective complications.

CONCLUSIONS

We recommend placing the tunnelled CICC exit site as follows:

In the scapular area, if a supraclavicular approach has been adopted;

In the deltoid region, if a subclavicular approach has been chosen;

In the lateral area of the thigh for femoral access.

These sites are thought to guarantee a simple, stable, and easy to manage vascular access, even during proning maneuvers

REFERENCES

1 – Ostroff M, Moureau N, Pittiruti M. Rapid Assessment of Vascular Exit Site and Tunneling Options (RAVESTO): A new decision tool in the management of the complex vascular access patients. J Vasc Access. 2023 Mar;24(2):311-317. doi: 10.1177/11297298211034306.



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