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PREDICTION OF FAILURE RISK IN THE FIRST ATTEMPT AT PERIPHERAL PUNCTURE: SECONDARY ANALYSIS OF THE SPECTRA CLINICAL TRIAL FROM THE PERSPECTIVE OF THE CONTROL GROUP

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Purpose/Design

The Adult Difficult Intravenous Access Scale can find the risk of failure in the first attempt at peripheral venipuncture. This subanalysis evaluated the success or failure of venous device insertion in patients stratified by the Adult Difficult IntraVenous Access Scale who were punctured without ultrasound guidance.

Methods

- Subanalysis of the randomized SPECTRA controlled trial.
- Study was approved by the Ethics Committee.
- Public Hospital in southern Brazil from
- March to June 2023
- Adult patients who were hospitalized

This subanalysis evaluated the results from the perspective of the control group, stratified into high risk versus low/moderate risk according to the Adult Difficult Intravenous Access Scale. The number of puncture attempts and length of catheter permanence were analyzed as outcomes. Composite negative outcomes included infiltration, obstruction, extrusion, and phlebitis.

Intervention Group (n=82) - Ultrasound-guided + nurses from the vascular access team

Control Group (n= 84) - Peripheral venipuncture by clinical practice nurses

Results

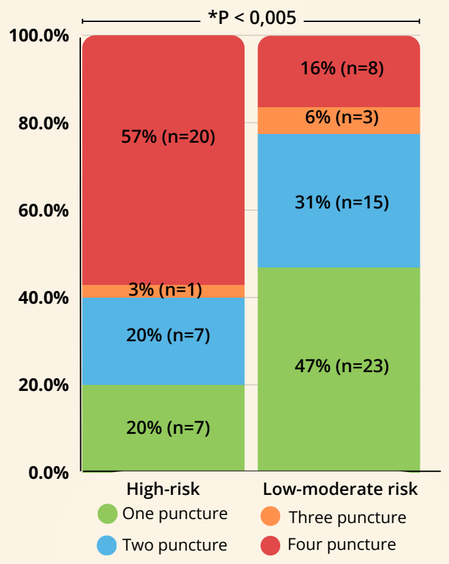
84 PATIENTS

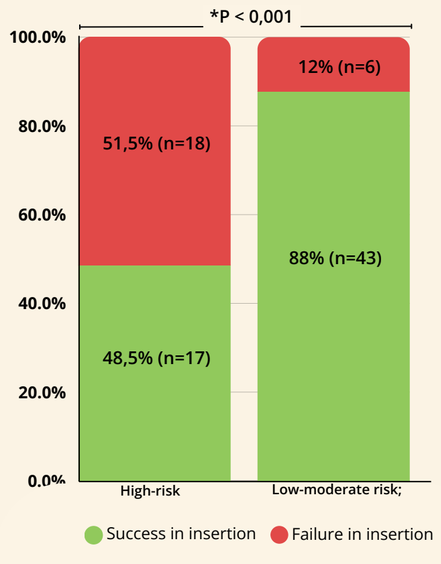
LOW-MODERATE RISK=49

HIGH-RISK= 35

53 patients (63.1%) were women, with a mean age of 59 ± 16 years and infectious causes as the main reason for hospitalization.

High risk group spent less time with the catheter: 3 (2-8) days versus 8 (2-8) days of low-moderate risk, p=0.065; withdrawal due to **negative outcomes was higher in high-risk patients, 32 (91%) versus 24 (49%).**





Limitations

Secondary data collection.

Conclusion:

Patients classified as high risk by the Adult Difficult Intravenous Access Scale underwent more puncture attempts, spent less time with the catheter, and had more negative outcomes.

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