



We conclude that the intracavitary electrocardiography method is safe and accurate in neonates as demonstrated in pediatric and adult patients” Capasso et al (2018).

Abstract:

**PURPOSE:** The neonatologists of Sant’Anna and San Sebastiano Hospital of Caserta have carried out a pilot study investigating the safety, feasibility, and accuracy of intracavitary electrocardiography for neonatal epicutaneous cava catheter tip positioning.

**PATIENTS AND METHODS:** We enrolled 39 neonates (1-28 days of postnatal age or correct age lower than 41 weeks) requiring epicutaneous cava catheter in the district of superior vena cava (head-neck or upper limbs). Intracavitary electrocardiography was applicable in 38 neonates.

**RESULTS:** No significant complications related to intracavitary electrocardiography occurred in the studied neonates. The increase in P wave on intracavitary electrocardiography was detected in 30 cases. Of the remaining eight cases, six malpositioned catheters tipped out of cavoatrial junction-target zone (chest x-ray and echocardiographical control) and two were false negative (tip located in target zone). The match between intracavitary electrocardiography and x-ray was observed in 29/38 cases, and the same ratio between intracavitary electrocardiography and echocardiography was detected.

CONCLUSION: We conclude that the intracavitary electrocardiography method is safe and accurate in neonates as demonstrated in pediatric and adult patients. The applicability of the method is 97% and its feasibility is 79%. The overall accuracy is 76% but it rises to 97% if “peak” P wave is detected.

Reference:

Capasso, A., Mastroianni, R., Passariello, A., Palma, M., Messina, F., Ansalone, A., Bernardo, I., Brescia, D., Crispino, F., Grassia, C., Romano, A. and Ausanio, G. (2018) The intracavitary electrocardiography method for positioning the tip of epicutaneous cava catheter in neonates: Pilot study. *The Journal of Vascular Access*. March 1st. .

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