Central Venous Lines in Low-birth-weight Newborns: Watch Out

To the Editor:

I wish to congratulate the authors of the paper “A Retrospective Analysis of the Clinical Effectiveness of Supraclavicular, Ultrasound-guided Brachiocephalic Vein Cannulation in Preterm Infants.” Anyone who has been involved with low-birth-weight newborns know that cardiac tamponade is a real and deadly complication caused by a central line placement. This dilemma is caused by the catheter tip getting lodged in the pericardial sack; the resultant infusion of the intravenous fluids causes the tamponade. The reported incidence is between 0.07% and 2%. This complication was not mentioned by the authors. Their retrospective review of their central venous line insertion technique would seem to be a great step forward in making central venous catheter placement in this group of patients safer. Prospective studies, as mentioned by the authors, must be done to ascertain the real short-term and long-term safety of this technique.

Competing Interests

The author declares no competing interests.

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References


In Reply:

We want to thank Dr. Brock-Utne for his valuable contribution. Undoubtedly, pericardial effusion with ensuing tamponade is a possible complication of any central venous catheter with a high mortality. Peripherally inserted central venous lines may even carry a greater risk due to catheter tip migration with changes of arm position.

However, the purpose of our analysis was to demonstrate the relative ease and safety of supraclavicular, ultrasound-guided brachiocephalic vein cannulations in preterm infants without including any long-term complications as of yet. In 155 brachiocephalic venous catheters in babies less than 2.5 kg, we have not observed a pericardial effusion. The best way to avoid a pericardial effusion caused by central venous lines and other major complications is to follow, e.g., the Italian vascular access guidelines, which also propose the correct catheter tip position in the cavoatrial junction preferentially by the use of echocardiography or intracavitary electrocardiography.

Competing Interests

The author declares no competing interests.

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