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Letter to the Editor / Editöre Mektup

Ultrasonographic guidance should be the first option during central vein catheterization

Ultrasonografi rehberliğinde santral ven kataterizasyonu ilk seçenek olmalıdır

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Dear Editor,

We read the article with great interest titled "The success rate and safety of internal jugular vein catheterization under ultrasound guidance in infants undergoing congenital heart surgery".[1] The authors present their institutional experience of internal jugular vein catheterization under ultrasound guidance in 70 infants who underwent congenital heart surgery. Their overall success rate of the procedure was 92.8% and the insertion was successful at the first attempt in 82% of the patients. Complications were seen in 7.14% of the patients and one of them (1.42%) developed pneumothorax and four patients (5.7%) developed hematoma due to repeated attempts.

Similar to previous reports regarding this issue,[2,3] "blind technique" or "Landmark technique" should be abandoned in patients undergoing cardiac surgery due to the frequent use of antithrombotic agents which is as high as 99.1%. Therefore, a relatively high rate of complications occurs in this patient population which may require surgical intervention.

In our institute, all kind of central vein or arterial catheterizations are performed under ultrasonographic (USG) guidance to reduce complication rates for the last three years. In a recently published report, we shared our experience in 584 cases.[4] The total complication rate was found to be 6% with USG guidance including hematoma, carotid artery puncture, pneumothorax, malposition, and hemorrhage. Thus, USG guidance revealed an 18% decrease in the overall complication rate, compared to the Landmark technique.

In conclusion, health care professionals should consider use of ultrasonographic guidance during central vein catheterization in routine practice, at least in cardiac surgery patients, to reduce complications rate and to avoid medicolegal issues which seem to be increased in the near future.

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