
Abstract:
PURPOSE: Multilumen central venous catheters (CVCs) are not commonly used for power injection. However, in critically ill patients, CVCs– most of which do not have FDA approval for power injection–may be the only available venous access.
MATERIALS AND METHODS: The pitfalls of multilumen CVCs are illustrated by a case report of a patient in whom extravasation of intravenously administered contrast medium occurred after power injection in a triple-lumen CVC using the lumen with the port furthest from the catheter tip.
RESULTS: The underlying mechanisms for the displacement of the initially correctly placed right subclavian CVC could include elevation of both arms of the obese patient or the power injection itself. The distances between port openings and catheter tips of various commercially available multilumen CVCs are assessed. We examine the possible caveats of ECG-guided CVC placement for optimal tip position, discuss technical difficulties related to power injection via CVCs, and review commonly used drugs that may cause extravasation injury.
CONCLUSION: Knowledge of the distances between CVC port openings and the catheter tip are essential for safe intravasal administration of fluids. (c) Georg Thieme Verlag KG Stuttgart-New York.

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