



We discuss a novel technique of utilizing intracavitary electrocardiogram to help confirm proper peripherally inserted central catheter tip repositioning, thereby reducing the need for serial radiographs” Weber et al (2019).

Abstract:

INTRODUCTION: Peripherally inserted central catheter tip migration is an infrequent event that occurs in neonatal, pediatric, and adult patients. We discuss a novel technique of utilizing intracavitary electrocardiogram to help confirm proper peripherally inserted central catheter tip repositioning, thereby reducing the need for serial radiographs.

CASE PRESENTATION: A case series of four patients will be discussed. The first three patients had peripherally inserted central catheter tips that were initially appropriately positioned but had later peripherally inserted central catheter tip migration. The use of intracavitary electrocardiogram was able to confirm the appropriate repositioning of the peripherally inserted central catheters without the need for serial radiographs. The fourth patient had several central lines in place, which led to difficulty in identifying the peripherally inserted central catheter tip location. The use of intracavitary electrocardiogram confirmed proper positioning of his peripherally inserted central catheter tip when standard radiographs could not provide clarity.

DISCUSSION: Several techniques have been published on methods to reposition a migrated

peripherally inserted central catheter tip back to the superior vena cava/right atrial junction. These repositioning techniques often require fluoroscopic guidance or a confirmatory radiograph to assess the appropriate peripherally inserted central catheter tip location. At times, several radiographs may be required before the tip is successfully repositioned. This novel application of intracavitary electrocardiogram can help to minimize radiographs when peripherally inserted central catheter tip repositioning is required.

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Reference:

Weber, M.D., Himebauch, A.S. and Conlon, T. (2019) Repositioning of malpositioned peripherally inserted central catheter lines with the use of intracavitary electrocardiogram: A pediatric case series. *The Journal of Vascular Access*. July 31st. doi: 10.1177/1129729819865812. .

