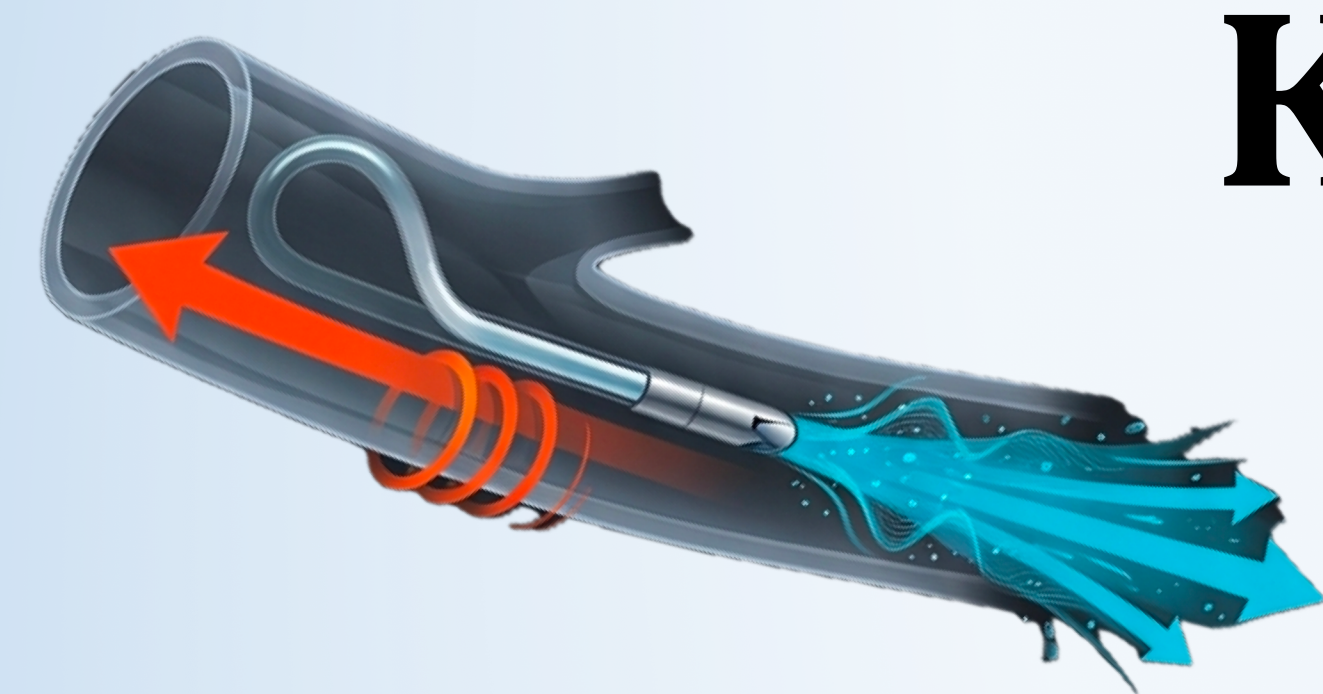
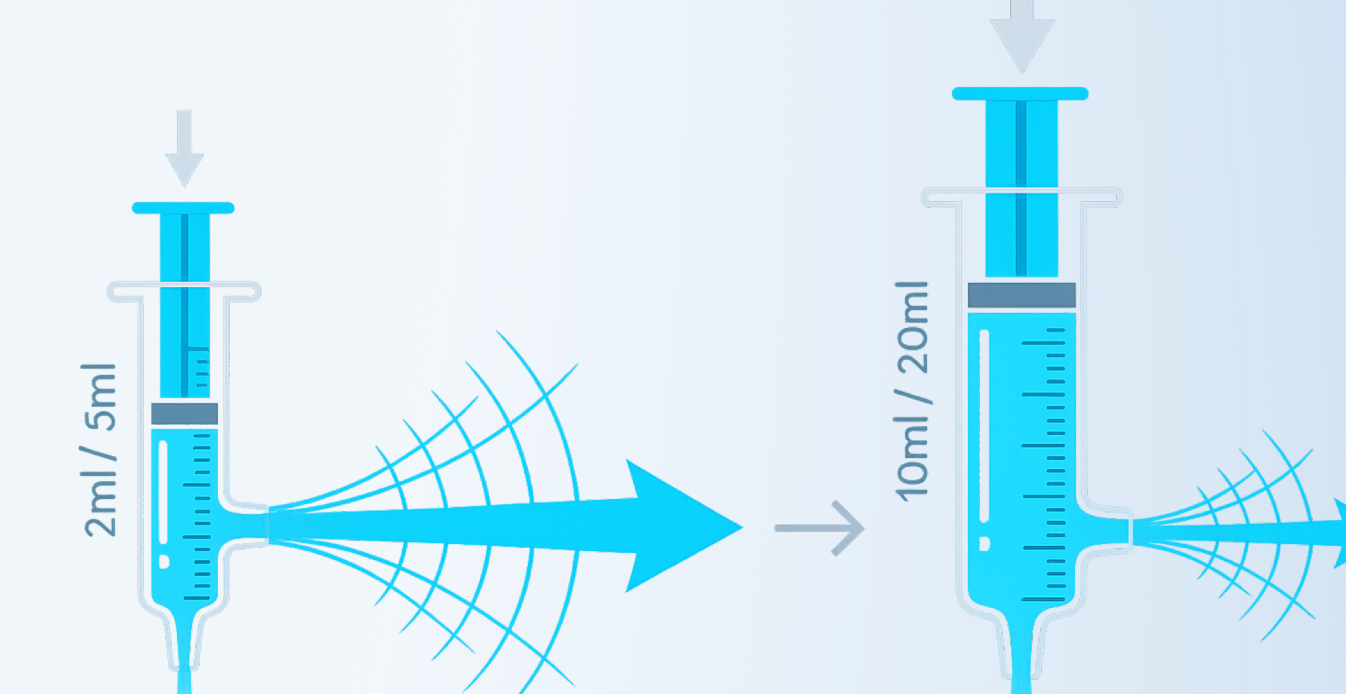




Kinetic Force to the Rescue: Saline Power Push Maneuver to Dismantle Loops in PICC Catheter Installation

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Introduction: PICC malposition, particularly tip looping, is a frequent and clinically relevant complication. Conventional management involves catheter withdrawal after radiographic confirmation, often leading to suboptimal tip positioning or increased external length with risks of dislodgement, infection, and phlebitis. High-pressure saline injections may generate sufficient kinetic force to promote catheter tip migration. This case describes the use of the High-Pressure Saline Bolus (HPSB) technique as a minimally invasive strategy to correct PICC malposition.

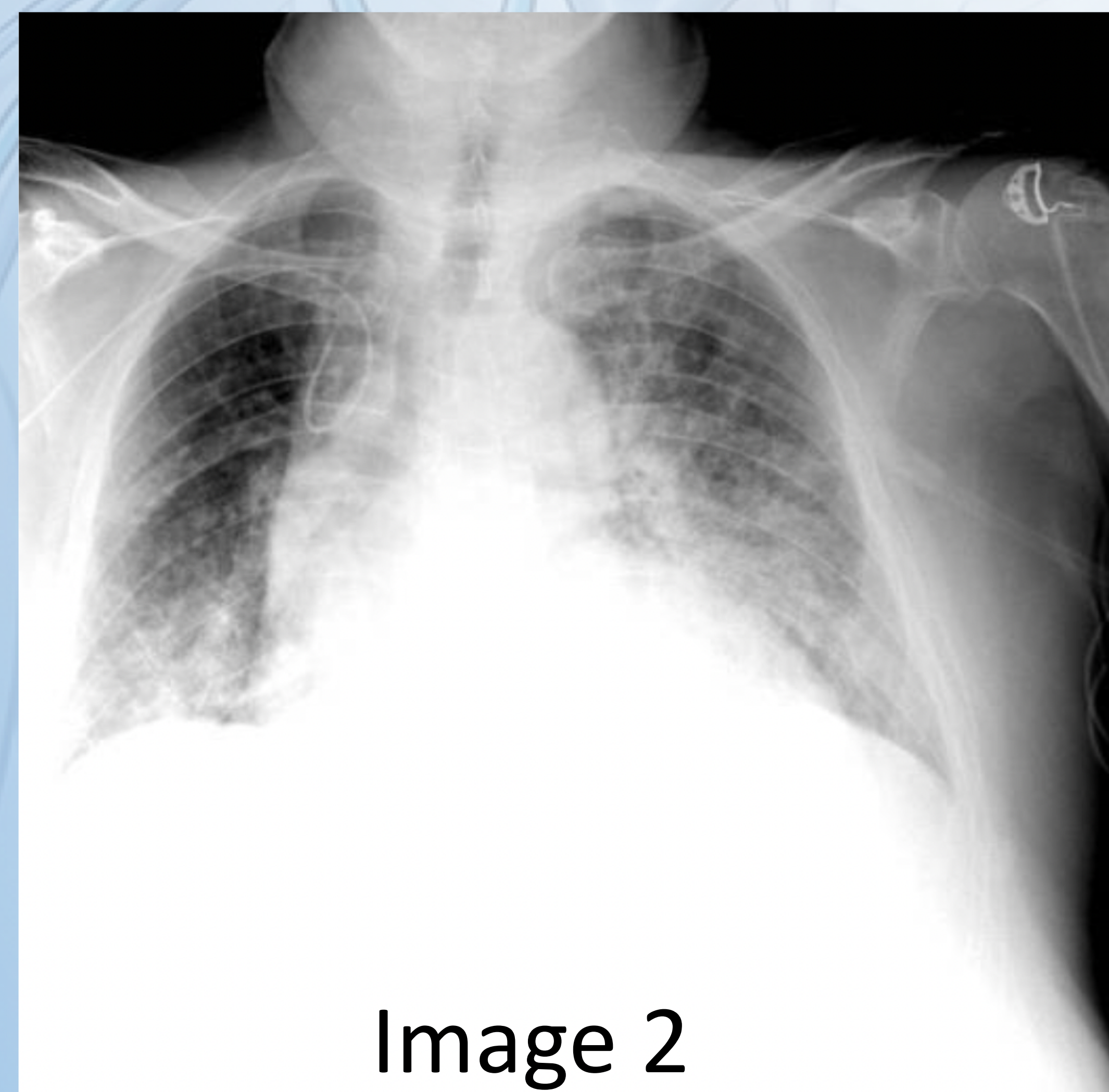


Image 2

Results: After the first HPSB cycle, the loop partially resolved and the tip migrated from the jugular vein to the superior vena cava, although positioning remained suboptimal (Image 2). A second cycle achieved complete loop correction and optimal alignment along the SVC axis, allowing safe administration of hyperosmolar and vesicant therapies without complications (Image 3).

Conclusion: The HPSB technique successfully corrected PICC looping during insertion, avoiding catheter withdrawal and suboptimal positioning. This case highlights the potential of controlled kinetic force to resolve catheter malposition. Further studies are required to determine optimal pressure parameters and confirm clinical applicability.

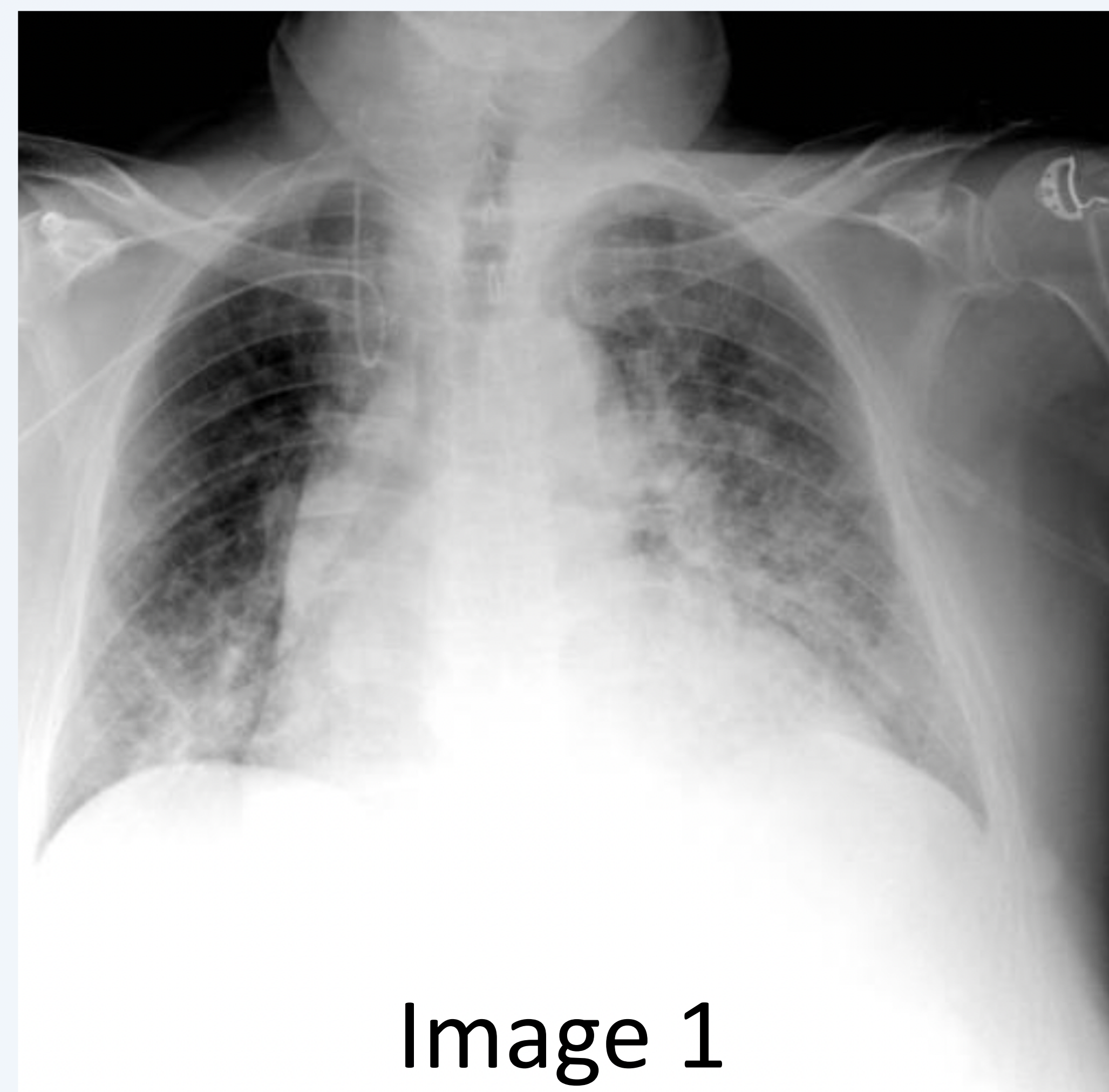


Image 1

Methods: A 52-year-old ICU patient underwent insertion of a 3-lumen Power PICC via the right basilic vein. Post-procedure chest X-ray revealed distal subclavian looping with cranial migration of the tip into the right internal jugular vein (Image1). To avoid catheter withdrawal, the nursing team applied the Bolus Saline at High Pressure (BSSAP) technique using 2–5 mL syringes to generate high pressure according to Pascal's principle in a high-pressure-rated catheter. Two cycles were performed with radiographic reassessment.

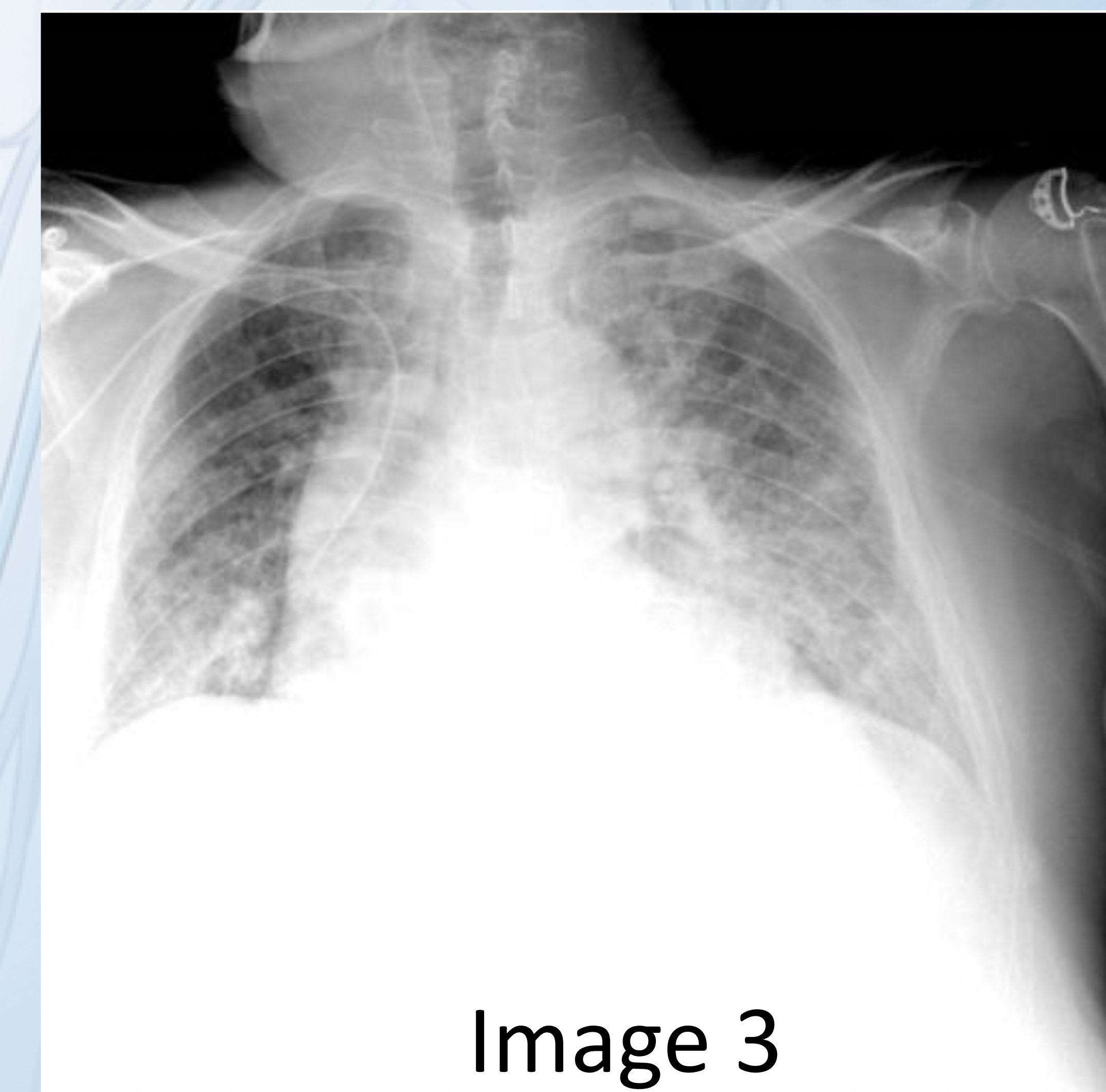


Image 3