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Case Report: Discrepancies in Pneumothorax Detection in a 61-Year-Old Patient with Traumatic Chest Injuries Following Erector Spinae Plane Block

A 61-year-old patient was admitted to the hospital with possible pulmonary contusion and multiple rib fractures following a fall and assault. Initial CT scan of the chest showed left-sided pneumothorax and rib fractures. A repeat chest X-ray on day 2 did not identify a pneumothorax, and an ultrasound-guided erector spinae plane block was performed for pain management. The erector spinae block was performed using ultrasound guidance at the T5 level with an injection of 20 mLs of bupivacaine and repeated bilaterally. Following the procedure, a subsequent repeat chest x-ray showed a small left apical pneumothorax and was later determined to be consistent with the initial CT. This case highlights the inherent limitations of various imaging modalities and the imprecision of imaging-based diagnoses in traumatic chest injuries. Anesthesiologists should also consider bedside ultrasound exams, considering its often superior sensitivity to x-ray, to determine if the patient is a good candidate for regional blocks, especially in the case of conflicting imaging reads.