

# Comparison of Bedside Sonography with Ct Scan in Diagnosis of Pneumothorax

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## Abstract

**Background:** Ultrasound is the choice modality in the unstable patients and after performing certain procedures, such as a thoracentesis or the placement of a central venous line, which helps to rule out an iatrogenic pneumothorax. Upright AP radiograph has less sensitivity in diagnosing pneumothorax in comparison with ultrasound. Ct scan is more sensitive in diagnosis occult pneumothoraces but Bedside ultrasound is preferred in unstable situations without any radiation exposure. so we aimed to compare sensitivity of sonography with ct scan in patients who are suspicious to pneumothorax after thoracentesis or the placement of a central venous line or intubation.

**Methods:** A radiologist performed bedside sonography first and then chest ct scan was performed for 40 patients and was interpreted without knowing ultrasound results. Absence of lung sliding, loss of 'comet-tail artifacts and Lung-point sign were assumed as sonographic criteria for diagnosis pneumothorax

**Results:** The result of CT and sonography was the same in 38 case (18 case pneumothorax and 20 case without pneumothorax) 2 cases with small occult pneumothorax were not diagnosed with sonography but pneumothorax was reported at CT scan.

**Conclusions:** Sonography is valuable method in diagnosis pneumothorax in unstable patients after invasive thoracic procedures.

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