Does the Radiation Dose Received by the Bronchoscopist and Staff Differ Between Conventional and Robotic-Assisted Bronchoscopy?

STUDY DESIGN

Prospective study evaluated radiation exposure to bronchoscopist and team members during conventional and robotic-assisted bronchoscopy

RESULTS



54 procedures over 10-month period

Conventional bronchoscopy (15)

Robotic-assisted bronchoscopy (39)

- C-arm-based tomosynthesis (27)
- C-arm fluoroscopy (12)



Robotic-assisted bronchoscopy with C-arm tomosynthesis



(significantly higher radiation exposure to operator's skin underneath the thyroid collar)



No difference of radiation exposure between:

- Conventional bronchoscopy
- Robotic-assisted bronchoscopy with C-arm fluoroscopy



Radiation dose received by staff was minimal across all procedure types

In this study, there was no overall reduction in radiation exposure to the bronchoscopist with robotic-assisted bronchoscopy, and using C-arm-based tomosynthesis increased radiation dose significantly. This study highlighted the continued need for rigorous radiation safety practice with newer platforms.

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