

MEETING ABSTRACT

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Can we send patients with large non-resolving pneumothorax home post chest drain removal?

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Background/Introduction

In thoracic surgery, access to the pleural cavity involves a pleurotomy. A chest drain is inserted to allow re-expansion of the lungs post-pleurotomy. This also prevents a tension pneumothorax. Some patients have a residual pneumothorax post chest drain removal noted on chest radiography (CXR) despite having no air leaks. Rates of pneumothorax post chest drain removal vary with figures quoted at 9.3-13.6%. The majority of these are barely perceptible or small (<1 cm from pleural line to the apex of the hemithorax). Some are larger (>2 rib spaces in apex or base). For these larger pneumothoraces, is it safe to send patients home?

Aims/Objectives

To assess the progress of patients discharged with large non-resolving pneumothoraces.

Method

A retrospective observational study was done at our unit over a 6-month period. All patients had chest drains post-operatively and were discharged if there were no air leaks or worsening of their pneumothorax post drain removal. A repeat CXR was obtained during routine follow up 6 weeks later. Patients with pneumonectomies and permanent thoracostomies were excluded from the study. Air leaks were detected using digital drainage systems.

Results

There were 158 patients in the study. The mean age was 59.7 years (SD = 16.6). All patients were asymptomatic at the time of discharge and none required further intervention in other hospitals with regards to their pneumothorax. There were 9 (5.7%) patients who were discharged with large residual pneumothorax (>2 rib space) visible on CXR.

The mean age of this cohort was 69.7 years (SD = 8.8). During follow up, these residual spaces were either partially or fully fluid filled with no radiological or symptomatic worsening.

Discussion/Conclusion

This study found that it was safe to discharge asymptomatic patients with a large pneumothorax provided they are haemodynamically stable and had no air leak.

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