

ORAL PRESENTATION

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# Early postoperative changes in lung function after resection for lung cancer – do the complications have influence?

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From 23rd World Congress of the World Society of Cardio-Thoracic Surgeons  
Split, Croatia. 12-15 September 2013

## Background

The objective of this study was to investigate immediate postoperative lung function changes after resection for primary lung cancer in patients without and with postoperative complications.

## Method

Sixty patients undergoing surgical resection (sublobar, lobectomy, and pneumonectomy) for non-small cell lung cancer were included in a prospective, single institution study. Sex, age, stage and type of lung cancer, comorbidities, preoperative values of lung function tests including DLCO and exercise test were analyzed. Postoperative complications were classified as surgical, respiratory and cardiovascular. FEV1 and FVC were measured on postoperative days 1, 3 and 7, regardless of postoperative complications.

## Results

Study encompassed 60 patients (70% male, mean age  $60.9 \pm 8.4$  and 30% female, mean age  $56.9 \pm 6.5$ ). Mild degree of COPD was noted in 20% and moderate in 35% of patients, according to GOLD classification. All postoperative adverse events, not only major complications were recorded. Respiratory complications occurred in 20%, surgical in 41.7% and cardiac in 19% of patients. Measured postoperative values of FVC% and FEV1% on days 1, 3 and 7 after surgery showed continuous improvement, with significant difference between the days of measurement, specially days 3 and 7. Values recorded on day 7 did not differ from ppo FEV1%. No difference in early postoperative trend of lung function recovery was noted

between patients without and with postoperative complications. However, patients that developed respiratory complications showed significantly lower values of FEV1 and FVC on postoperative day 1.

## Conclusions

Early lung function after resection for lung cancer shows significant improvement despite of postoperative complications.

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Published: 11 September 2013

doi:10.1186/1749-8090-8-S1-O222

Cite this article as: Ercegovac et al.: Early postoperative changes in lung function after resection for lung cancer – do the complications have influence? *Journal of Cardiothoracic Surgery* 2013 **8**(Suppl 1):O222.

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