

European Respiratory Society Annual Congress 2012

Abstract Number: 4412

Publication Number: 3305

Abstract Group: 8.1. Thoracic Surgery

Keyword 1: Lung cancer / Oncology **Keyword 2:** Lung function testing **Keyword 3:** Surgery

Title: Six minute walk test (6MWT) in patients with diagnosis of lung cancer – Clinical value in physiological evaluation candidates for surgical treatment

Monika 26740 Franczuk monika.franczuk@gmail.com MD , Piotr 26741 Rudzinski p.rudzinski@igichp.edu.pl , Jerzy 26742 Usiekiewicz j.usiekiewicz@igichp.edu.pl , Marek 26743 Kram m.kram@igichp.edu.pl , Renata 26744 Langfort r.langfort@igichp.edu.pl , Stefan 26755 Wesolowski s.wesolowski@igichp.edu.pl and Tadeusz 26760 Orłowski t.orłowski@igichp.edu.pl . ¹ Lung Function Dept, Thoracosurgery Dept, Rehabilitation Dept., Dept of Pathology, National Research TB and Lung Diseases Institute, Warsaw, Poland, 01-138 .

Body: The lung function testing (LFT) and assessment of exercise capacity in patients with lung cancer are important tools for qualification for the surgery and estimation the risk. However the commonly used 6MWT is not recommended by the current guideline as a reliable method of evaluation (Brunelli 2009). The aim of the study was to analyze the differences in LFT and 6MWT between patients with and without complications after lung resection. The analysis included 127 operated pts (mean age 63,1±9,3 yrs, 80 M, 47 F), with histopathologically confirmed NSCLC. Patients with a history of previous lung resection, chemotherapy or radiotherapy were not included into the study. The comparison of LF and 6MWT was performed and the differences between pts without (86 pts) and with (41 pts.) postoperative complications (e.g. arrhythmias, PAL, hemorrhage) were noted: FEV1 2,4 vs. 2,1L p=0,01 (91,3 vs. 75,5%, p<0,001), FEV1%FVC 69,2 vs. 60,3 % (p<0,001), ppoFEV1 1,9 vs. 1,6 L, p = 0,01 (71,9 vs. 51,3 %, p<0,001), 6MWT distance 430 vs. 415m (ns), SaO2 start 96,9 vs. 95,5% (p<0,001), SaO2 min 95,1vs. 92,2% (p<0,001). In univariate analysis ppoFEV1 %pred., 6MWT distance and minimal value of SaO2 during the test were significant prognostic variables. Conclusions: Patients with postoperative complications had lower lung function indices (FEV1, ppoFEV1) and lower minimal saturation during 6MWT than those with uneventful postoperative course. Those findings suggest that 6MWT, highly reliable in estimating exercise tolerance in COPD patients, ILD and IPAH, can be valuable also in assessment of lung cancer patients, candidates for surgical treatment.