POST-OPERATIVE OUTCOMES IN NON-SMALL CELL LUNG CANCER PATIENTS WITH MILD TO MODERATE STAGE CHRONIC OBSTRUCTIVE PULMONARY DISEASE

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Aim: Chronic Obstructive Pulmonary Disease (COPD) is a common comorbidity of lung cancer. Recently it has been reported that the coexistence of COPD influences the prognosis of patients with lung cancer undergoing surgical resection. However it is limited the relationship between the severity of COPD and the prognosis among such patients. We assessed outcomes in non-small cell lung cancer (NSCLC) patients with mild to moderate COPD after complete surgical resection.

Methods: A retrospective chart review was performed on 376 patients who had undergone complete surgical resection for NSCLC at The Tazuke Kohukai Medical Research Institute Kitano Hospital between January 2007 and December 2012. Among those patients, 112 patients were diagnosed with mild or moderate COPD based on the guidelines of the Global Initiative for COPD (GOLD). There were only 5 patients with severe or very severe COPD, so we just focused on mild to moderate COPD patients. We assessed the relationship between the severity of COPD, Overall Survival (OS), Cancer-Specific Survival (CSS) and Disease-Free Survival (DFS).

Results: The characteristics of 112 patients with COPD were as follows; mild COPD/moderate COPD: number of patients (male) 42 (21)/70 (57), age 71.0/70.5 years-old, pathological stage of NSCLC IA 30/25 IB 5/8 II A 3/8 IB 3/4 III A 5/19 IIIB 0/1, histology adenocarcinoma (Ad) 29/40 squamous cell carcinoma (Sq) 9/27 large cell neuroendocrine carcinoma (LCNEC) 2/2 pleomorphic carcinoma 0/2 Ad + Sq 1/0 Sq + LCNEC 1/0. Each of OS and DFS was 2287 days (1984 - 2589) and 2015 (1679 - 2351) days in mild COPD patients and 2004 (1873 - 2135) days and 1768 (1656 - 1890) days in moderate COPD patients. Compared with patients with mild COPD, patients with moderate COPD had increased risk of worse OS (p = 0.035) but had no differences in CSS (p = 0.867) and DFS (p = 0.125) by log-rank analysis.

Conclusions: Patients with moderate COPD after complete surgical resection had similar DFS and CSS, but had worse OS, compared with patients with mild COPD. This might result from the complications or the comorbidities of COPD such as pneumonia and the other smoking related cancers. Clinicians should take them into account when they follow up completely resected NSCLC patients with COPD.

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