P05
30 Years' Experience of Endoscopic Operations on Trachea and Bronchi in Lung Cancer Palliative Treatment

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Background: Endoscopic operations on trachea and bronchi are palliative method of lung cancer common forms treatment. The use of this surgical interventions type in patients with the above pathology improves quality and extends the life span. We summarized the 30-year experience of performing endobronchial operations in patients with lung cancer. **Method:** In the clinic, endoscopic operations on the trachea and bronchi in lung cancer were performed in 1,720 patients, of which 1384 were men and 336 women. Total number of operations 4781. All patients had complete or partial stenosis of bronchi and trachea. Radical surgery was impossible to perform due to the prevalence of the process, either because of the comorbidity presence. Basically, we used a rigorous Friedel bronchoscope - in 1255 patients, the remaining 465 patients used an Olympus fibrobronchoscope. Rigid bronchoscopy was performed using endotracheal anesthesia, interventions with the use of a fibroblochoscope were performed under local anesthesia. We used three methods of influencing the tumor: laser radiation (1259 patients), electrosurgical method (146 patients) and radiofrequency ablation (315 patients). As a source of laser radiation, we used YAG-Nd laser, with a wavelength of 1064 nm and a power of 40 W. Both contact and non-contact methods of influencing the tumor were used. Electrosurgical operations implemented by a contact method using a conventional surgical coagulator under local anesthesia using fibrobronchoscope. The radiofrequency ablation (RFA) method implies the use of an electron wave at a frequency of 500 kHz. As a power source was used Fotec 150 generator. Operative interventions were performed under local anesthesia with the use of fibrobronchoscopy method. **Results:** In all 1720 patients we managed to achieve complete or partial trachea and bronchi recanalization. The best results were obtained in patients using the RFA method, complete recanalization was achieved in 85% of patients. The diathermocoagulation method showed significantly lower efficiency (complete patency was restored in 24% of patients) and in 28 patients of this group developed pulmonary hemorrhage, which could not be stopped in 8 patients. The use of the YAG-Nd laser made it possible to restore bronchial patency completely in 64% of patients. **Conclusion:** 1. Endoscopic surgery for tumor stenosis of the respiratory tract are palliative, but their use can improve the quality of life and prolong the life of patients. 2. The RFA method for respiratory tract tumor stenoses recanalization is an effective, simple to implement and can be used in patients with severe comorbidities. **Keyword:** endoscopic operations, lung cancer, palliative treatment

P06
Competing CNS or Systemic Progression Analysis for *EGFR* Mutation-Positive NSCLC Patients on Afatinib in LUX-Lung 3, 6, and 7

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Background: CNS metastases are known complications of advanced *EGFR* mutation-positive NSCLC, thus, LUX-Lung (LL) trials investigating afatinib allowed enrolment of patients with brain metastases (BM). LL3, 6 and 7 previously demonstrated activity of afatinib in patients with BM, with the magnitude of progression-free survival (PFS) improvement with afatinib vs chemotherapy or gefitinib in patients with BM being similar to that observed in patients without BM (HR 0.54, 0.47, and 0.76 in LL3, 6 and 7, respectively).[1,2] PFS was significantly improved with afatinib vs chemotherapy in a combined analysis of LL3 and 6 in patients with asymptomatic BM (HR 0.50, p=0.0297).[1] To investigate whether afatinib can prevent CNS progression or metastasis, competing risk analyses for the progression and metastasis pattern in the CNS or non-CNS region were carried out in patients with and without BM in LL3, 6 and 7. **Method:** Competing risk analyses were performed in patients with stage IIIB/IV *EGFR* mutation-positive NSCLC who received afatinib 40 mg/day in LL3, 6 and 7. Analyses were performed separately for patients with baseline BM and without baseline BM. Risk of CNS progression vs non-CNS progression or death was calculated based on the cumulative frequency of the event of interest vs the competing risk event. **Results:** In patients with baseline BM receiving afatinib in LL3 and 6 (n=48; median follow-up 10.3 months), the cumulative incidence of CNS progression was 39.9% lower than that of non-CNS progression (31.3% vs 52.1%). The cumulative incidence at 6 and 12 months for CNS progression was 15.5% and 24.5%, respectively. In patients without baseline BM receiving afatinib in LL3, 6 and 7 (n=485; median follow-up 13.0 months), risk of *de novo* CNS progression was very low (6.4%) compared with non-CNS progression (78.4%). Cumulative incidence at 6 and 12 months (CNS progression vs non-CNS progression) was 1.3% vs 17.2%, and 2.6% vs 41.2%, respectively. **Conclusion:** Competing risk analyses using data from LL3, 6 and 7 add to the existing evidence that supports afatinib use in patients with *EGFR* mutation-positive NSCLC and CNS metastases. Taken together, these results show that afatinib delays the onset/progression of BM. 1. Schuler. J Thorac Oncol 2016;11:380—90 2. Park. Lancet Oncol 2016;17:577—89 **Clinical trial identification:** NCT00949650, NCT01121393, NCT01466660 **Keywords:** CNS metastases, EGFR, NSCLC, Afatinib

P07
Preliminary Orthogonal Analysis of EML4-ALK Gene Fusion Detection Methods in Chilean Patients with Lung Adenocarcinoma

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Background: Lung cancer is the leading cause of cancer death in women and men. ALK mutations show a prevalence of 5% or less among lung adenocarcinoma patients. Since ALK gene fusions are clinically actionable, it is important to know the mutation status for this gene to aid in treatment decisions for lung cancer patients. In Chile, Ventana ALK IHC is considered a gold standard methodology to identify ALK (+) patients for treatment. However, there is evidence showing that this method has some disadvantages; therefore, it's been suggested to consider additional diagnostic tests. This work reports the results of a preliminary orthogonal analysis using a next-generation sequencing based assay, Ventana ALK IHC, and qRT-PCR for the detection of ALK gene fusions in lung adenocarcinoma samples from Chilean patients under standard clinical settings. **Method:** As part of the NIRVANA study (NCT03220230), 515 lung adenocarcinoma samples were analyzed by Ventana ALK IHC test (Roche Diagnostics) and Oncomine Focus Assay (OFA, Thermo Fisher Scientific) NGS platform that includes the ALK gene fusion breakpoint