EMS57 Circulating serum ULBP 2 in patients with various lung diseases

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ULBP 2 is one of the NKG 2 D ligands, and is induced expression on infected, stressed, or transformed cells and modulates the host immunological function. However, the serum levels of soluble ULBP 2 (sULBP 2) are largely unknown in patients with lung diseases. In this study, we measured serum levels of sULBP 2 using an original ELISA system in 158 patients with various lung diseases, including lung cancer, upper respiratory infection, bronchitis, pneumonia, tuberculosis, nontuberculous mycobacteria infection, asthma, chronic obstructive lung disease, interstitial pneumonia, and bronchial ectasia. The average and standard deviations in each disease were as follows: 16.6 ± 49.4, 0 ± 0, 1.6 ± 4.0, 1.4 ± 5.7, 4.2 ± 8.5, 0 ± 0, 2.0 ± 4.9, 5.2 ± 5.2, 5.7 ± 11.7, and 3.7 ± 7.4 respectively. These results show that serum levels of sULBP 2 were significantly higher in lung cancer patients compared with levels in patients with other lung diseases and that sULBP 2 is a potential tumor marker for lung cancer.

EMS58 Measurement of Bronchoalveolar Lavage Tumor Markers SCC and Cyfra in Suspected Lung Cancer

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Introduction: We have previously reported the bronchoalveolar lavage (BAL) tumor marker CEA (50 th Annual Meeting of the JRS). BAL tumor marker measurement is sometimes helpful in the evaluation of lung cancer using cytology or histology. We here report the BAL tumor markers SCC and Cyfra.

Methods. Using a bronchoscope, we measured the SCC concentration (M 56, F 25, age 71.5±11.1 years, n=81) and the Cyfra concentration in BAL patients (M 33, F 11, age 73.0± 9.8 years, n=44) and also checked the cytology and histology if available.

Results: The patients' BAL tumor markers were as follows: SCC: 397.4 ± 383.3 ng/ml; Cyfra: 73.0 ±9.8 ng/ml.

Conclusion: The measurement of the tumor markers of BAL such as SCC and Cyfra is very helpful in the diagnosis of lung cancer if the titer is very high.

EMS59 The evaluation of PET if bronchoscopic findings are negative for cytology but positive for tumor markers of BAL

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Introduction: PET is useful for evaluating malignancy if the bronchoscopic findings of cytology and histology are negative. We investigated the usefulness of the PET examination in our hospital. Methods. We ordered PET examinations for 16 patients (M 12, F 4, age 71.5±12.5 years). Bronchoscopy was performed in patients whose cytology was PAP II(n=14) and PAP III (n=2). We performed PET examinations to diagnose whether abnormal shadows were malignant or not. The patients' bronchoalveolar lavage (BAL)tumor markers were SCC was 396.9±184.8 ng/ml. Results: After the PET examinations, lung cancer was revealed patients. No malignant diagnoses were 8 cases. Those cases were partly followed by the outpatient clinic in order to check CT images for these patients periodically. Conclusion. PET examination is useful if the BF's cytology is negative finding and has a large titer of tumor markers such as SCC

EMS60 Small Cell Lung Cancer in Never Smokers Associated with Environmental Tobacco Smoke and Family History of Cancer

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Although lung cancer in never smokers has been paid attention globally, its cause still remains unknown.

We experienced five cases (1.6%) of small cell lung caner (SCLC) in never smokers out of 310 consecutive

SCLC patients. They were newly diagnosed from January 2004 through July 2011.

We examined clinical characteristics focused on family history of cancer (FHC) and environmental tobacco smoke (ETS), and histology.

They were all females, and their ages at the time of diagnosis were 55, 65, 66, 77, and 61 years, respectively.

Three patients were extended disease (ED), and two were limited disease (LD).

Two patients had primary cancers other than SCLC which were successfully treated before diagnosis of SCLC.

All the cases had an FHC with exposure to ETS. Two patients had an epidermal growth factor receptor (EGFR) mutations.

Our cases provided unique clinical characteristics and backgrounds in never-smokers with SCLC.

EMS61 Recent Advances in Human Pulmonary Vascular Physiology

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In recent years, experiments in healthy volunteers, patients and animals have provided evidence that the transcription factor HIF (hypoxia-inducible factor), which coordinates cellular responses to hypoxia, also plays a major role in regulating the cardiopulmonary organ systems upon which cellular oxygen delivery ultimately depends. Human studies conducted in the laboratory and at high altitude in the field have further established that iron status modifies hypoxic pulmonary hypertension in a manner that is consistent with the known biochemical interaction between iron and HIF. These findings have clinical implications for the patients studied and, more generally, have introduced the possibility that iron may be important in the aetiology and clinical management of some forms of pulmonary hypertensive disease. It has subsequently been shown that iron deficiency independently worsens morbidity and mortality in patients with pulmonary hypertension, and international clinical trials of intravenous iron in this setting are now underway.