

phagocytic number, ratio of B-cells and CD8+V $\alpha$  to LC cells. Neural networks computing, genetic algorithm selection and bootstrap simulation revealed relationships between M1 and T-lymphocytes (rank=1), K-cells (2), ratio of segmented neutrophils to LC cells (3), B-cells (4), segmented neutrophils (5), CD4 (6), monocytes (7), ratio of leucocytes to LC cells (8), phagocytic number (9), CD1 (10), eosinophils (11), CD8+V $\alpha$  (12), index of thymus function (13), lymphocytes (14), CDw26 (15), NST-spontaneous (16), CD4+2H (17), phagocyte index (18). It was discovered that recognition of LCP with distant metastases (T1-4N1-3M1; n=95) from LCP without distant metastases (T1-4N0M0, n=147) significantly depended on: 1) level of B-cell circuit; 2) value of K-cell circuit; 3) level of humoral immunity; 4) neutrophils circuit; 5) value of cell ratio factors (ratio of LC cell population to immune cell subpopulations in integral LCP organism); 6) LC characteristics (T1-4, N0-3, G1-3, histology, tumor size); 7) anthropometric data (P=0.004). Correct classification of LCP with M1 from LCP with M0 was 83.9% by logistic regression (odds ratio=25.3) and 100% by neural by neural networks computing (area under ROC curve=1.0; errors=0.002).

P1-019 Chest Medicine and Intervention Posters, Mon, Sept 3

#### Bronchoscopic cryotherapy treatment of obstructive tumors with respiratory failure

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Obstruction within the lumen of the central airways that compromises ventilation and produces significant symptoms could occur in patients with either primary lung cancer or endobronchial metastasis. Laser resection can be considered but it has limitation with resecting the massively obstructing mass because of smoke. Endobronchial cryotherapy is the therapeutic application of extreme cold for local destruction of living tissue. We underwent flexible bronchoscopic cryotherapy for the patients with obstructive lung cancer with severe dyspnea.

Cases: A 69-year-old man was treated on the mechanical ventilator with respiratory failure. Computed tomography of the chest and bronchoscopy showed the mass obstructing the main carina. He was performed the cryotherapy to remove the mass twice. Three days later, he could be weaned off the mechanical ventilator. The other 59-year-old man presented with severe dyspnea. Four years before, he underwent left pneumonectomy because of lung cancer. Bronchoscopy revealed that mass on the right main bronchus obstructed the lumen about 80%. He was also performed the cryotherapy to remove the endobronchial mass.

**Conclusion:** It is notable that flexible bronchoscopic cryotherapy is not a painful procedure without general anesthesia and a very safe method without risk of perforation or massive bleeding. In conclusion, cryotherapy might be an excellent method for improving dyspnea and quality of life.

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#### Incidental mediastinal tumors detected by screening with low dose chest CT

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**Background:** As low dose chest CT (LDCT) is used frequently for the screening of lung cancer, incidental mediastinal tumors are found on LDCT images as by-products. We reviewed incidental mediastinal tumors detected by LDCT for the screening of lung cancer.

**Methods:** We retrospectively reviewed the radiologic reports of 11974 subjects (M:F=6612:5362, mean (range) age 54 (40-92) years) who underwent LDCT for the screening of lung cancer between May 2001 and Feb 2006.

**Result:** We found 101 incidental mediastinal tumors in 100 subjects (0.84%) (M:F=61:39, mean (range) age 55 (40-79) years). The most frequent radiologic diagnosis was thymoma/thymic cyst (75, 74.2%), followed by pericardial cyst (7, 6.9%), neurogenic tumor (5, 5.0%), enteric cyst (3, 3.0%), bronchogenic cyst (2, 2.0%), intrathoracic goiter (2, 2.0%), and unspecified anterior mediastinal tumors (7, 6.9%). Out of 100 subjects, 11 (11.0%) underwent operation after detection by LDCT (median (range) size=35 (19-52) mm), 45 (45.0%) were followed up more than six months in our hospital (median (range) follow-up time=19 (7-61) months)(median (range) size=13 (8-42) mm), and 44 (44.0%) were lost from our follow-up (median (range) size=16 (4-38) mm). Among 46 tumors of 45 subjects who were followed up, 38 tumors (82.6%) remained unchanged in size, 7 (15.2%) decreased and only one (2.2%) increased.

**Conclusion:** Most of small mediastinal tumors that had been observed after detection by LDCT screening remained unchanged or decreased in size. For incidental mediastinal tumors detected by LDCT, short term follow-up using another CT may not be necessary.

P1-021 Chest Medicine and Intervention Posters, Mon, Sept 3

#### Clinical Feature and Effectiveness of Chemotherapy in Elderly Lung Cancer Patients

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**Background and Objectives:** Lung cancer is generally a disease of the elderly with more than 50% of lung cancer patients being diagnosed when they are over the age of 65, and approximately 30% of patients being diagnosed when they are over age 70. Elderly patients do not tolerate chemotherapy well compared with their younger counterparts because of the age-related progressive reduction in their condition. Hence, this study examined the influence of age, stage, type of cancer, and effectiveness of chemotherapy.

**Methods:** This study reviewed the medical records of lung cancer patients who were diagnosed histopathologically at the Korea University Medical Center, Guro Hospital between 2000 and 2005. The patients' age was grouped into the following two categories: <70 years, as non elderly; and  $\geq$ 70 years as elderly patients. The survival time and response to chemotherapy in the elderly and non-elderly groups were compared.

**Results:** In NSCLC, the performance of the elderly patients was poorer than that of the non-elderly (p<0.001). There were significant differences in the survival time between the elderly and non elderly who received treatment (NSCLC: 12 vs. 21 months, p<0.001; SCLC: 14 vs. 28 months, p=0.04). However, in NSCLC and SCLC, elderly patients