ESTIMATION OF VARIOUS LUNG DISEASE BY Xe-133 - NEW SOFT PROGRAM - M. Oshima, T. Tatezawa, K. Sugimura, R. Onishi, K. Asakura, M. Akisada, K. Kimura, S. Hasegawa and M. Nishiyama. Department of Radiology, Kobe University School of Medicine, Kobe. A study on pulmonary hilar and mediastinal lymphoscintigraphy. A method is as follows. 30-50μCi of Au-198-Colloid (0.3-0.5μl) is injected through the needle of bronchofiberscope into the bilateral B8-B9 bronchii. In case of inflammatory diseases, one or more lymphnodes are visualized, but on the contrary in case of malignant diseases, only one or no lymphnodes are visualized especially in case of involved lymphnodes.


The more cigarette smoked, the severer the acute damage on the mucociliary clearance mechanism in a dose response manner in the dog as reported previously (Jap. J. Nucl. Med., 16: 442, 1979). The purpose of the present study was to elucidate how difference in the smoking conditions effected the migrating velocity of a tracer material (129I or 99mTc) which was placed on the carina of an anesthetized dog through a flexible bronchofiberscope. The transmision image of the chest was useful, but the functional images of V/Q, MTT and V/Q were obtained in each cases and the regional ratios of V/Q, MTT and V/Q indices were also calculated for each lung field divided into 6 zones. The functional images of V/Q, MTT and V/Q were obtained in each cases and the regional ratios of V/Q, MTT and V/Q indices were also calculated for each lung field divided into 6 zones. This time we made a new soft program which can subtract back ground activity of soft tissue of the chest and also possible shows each profile image of regional area of V/Q, MTT and V/Q. Back ground activity was decided by the histogram of soft tissue of chest and lung area. And soft tissue was also dicided by the transmission image of the chest. The following things were identified. Medium back ground activity was 11.6±1 in 6 patients. MTT was shortened 20 to 30 seconds by the back ground subtraction. Functional images of V/Q, MTT and V/Q didn't change in spite of back ground subtraction.

DIFFUSE BILATERAL PULMONARY ACCUMULATION OF Ga-67 CITRATE. K. Watanabe, K. Kawahira, H. Hosh, H. Yamada and Y. Ichiya. Department of Radiology, Miyazaki Medical College and Kyushu University School of Medicine, Miyazaki and Fukuoka.

Galium chest images of 257 patients (278 examinations) were analysed for the diagnostic significances of diffuse bilateral pulmonary accumulation of galium in conjunction with chest radiographs. These findings were founded in 16 patients with various malignant and benign diseases. Eight out of these 16 patients were able to explain the accumulation because of their abnormal chest radiographs. This group consisted of 3 patients with primary lung cancer, 2 with lung metastases, 1 with silicosis, 1 with sarcoidosis and 1 with pneumocystitis carinii infection. The primary lung cancer was all the type of alveolar cell carcinoma and the lung metastases was all the type of lymphangitis carcinomatosa. In the patient with uveitis who had been given steroids for the treatment, autopsy revealed the diffuse pulmonary infection of pneumocystis carinii. And the other 8 patients had no evidence of diffuse pulmonary diseases on the chest radiographs. This group included 5 patients with malignant lymphoma, 2 with lung cancer and 1 with lung inflammation. Radiographically invisible lymphomatous infiltration, low-grade subclinical infectious processus and toxic effect of the anticaner drugs were probable responsible for these abnormal pulmonary accumulation of galium.