
Ga-67 citrate scanning were carried out with PHO/CON in 214 cases without hilar abnormality on Chest P-A, Tomogram or Computed Tomogram, at least for 3 months later. The incidence of accumulation of Ga-67 into hila was investigated in these cases retrospectively. Accumulation of radioactivity in hila was obtained 27 out of 114 male cases (23%), and 18 out of 100 female. The percentage of the incidence of hilar accumulation in each decade was as follows: Under 20--0 %, 30--10 %, 40--10 %, 50--13 %, 60--37 %, 70--50 %, 80--60 %. The incidence of physiological accumulation was progressively increased with age. This incline was noticed especially in over 60 year-old patients.


Possibility of level up of the differential diagnosis of lung cancer by lung scintigraphy in combination with Ga-67-citrate and Tc-99m-MAA was studied. Subjects were 89 persons of lung cancer, 18 of pulmonary tuberculosis and 14 of other pulmonary disease. Degree of accumulation of Ga-67 was evaluated as score 1 of accumulation of liver. 37 of 69 cancer(42%) and 2 of 18 tuberculosis(11%) showed the larger degree of accumulation than 1. Defect of pulmonary perfusion was compared as 1 of size of lung lesion by X-P. Cases of the larger defect than 2 were 58 of 85 cancer(68%), 6 of 18 tuberculosis(33%) and 1 of 10 other pulmonary disease(10%). Certainty of diagnosis of lung cancer was increased by lung scintigraphy in combination with Ga-67-citrate and Tc-99m-MAA. Epidermoid was most among lung cancer that showed the larger degree of accumulation of Ga-67 than 1.


Ga-67 lung scan was performed in 83 patients with diffuse lung diseases to evaluate clinical usefulness of this examination. The series included cryptogenic fibrosing alveolitis(25), pneumoconiosis(12), drug-induced pneumonitis(11), pneumonitis due to collagen disease(10), miliary tuberculosis(6), sarcoidosis(5), hypersensitivity pneumonitis(3), lymphangitis carcinomatosa(3) radiation pneumonitis(3) and eosinophilic granuloma(1). Diffuse interstitial lung diseases characterized by granuloma formation such as hypersensitivity pneumonitis, sarcoidosis and miliary tuberculosis were associated with prominent Ga-67 accumulation.

In four patients under VEM(?) therapy with malignant lymphoma, diffuse high accumulation of Ga-67 was seen in the both lung field. Chest radiograph and blood gas data were almost normal in these patients. Two of them were proven by histology as pneumonitis. Ga-67 lung scan could be more sensitive than chest radiograph and blood gas data for the early detection of pneumonitis under chemotherapy.