
Ga-67 scintigraphy is useful because of its affinity for tumor and inflammation. We have discussed the clinical efficacy of it. We classified the contributions as (+); giving useful informations for clinical managements, (+); giving for further informations however without contribution to clinical management, (+); giving no further information, however true positive, (-); giving false positive or false negative. On the result of 348 cases in 1981, (+) was 13%, (+) was 21%, (-) was 22% and (-) was 45%.

Ga-67 scintigraphy was more effective in the cases of malignant lymphoma and abscess, although less effective in the cases of lung and other cancers.


The Ga-67 uptake was studied in 61 cases of diffuse pulmonary diseases; 13 silicosis (Si), 11 asbestosis (As), 9 idiopathic interstitial pneumonia (IIP), 4 collagen disease (Col.IP), 2 hypersensitivity pneumonia (HP), 9 hilum type sarcoidosis (Sar. H), 4 pulmonary type sarcoidosis (Sar.P), 2 histiocytosis X (HX), 7 diffuse panbronchiolitis (DPB).

High uptake was observed in patients with Si Sar.P, moderate uptake in patients with As IIP and low uptake in patients with Sar.H. Higher concentration of Ga-67 was observed in Col.IP than in IIP. Remarkably high concentration of Ga-67 was observed in one case of HP although we had examined only a couple of cases.

As to the patients with Si higher concentration of Ga-67 was observed in X-P Class 3 and 4 than in X-P Class 1 and 2.

No relationships were found in concentration among the patients with As. As to the patients with IIP the Ga-67 uptake was higher in X-P Class II than in X-P Class I.

Thus in the present contribution, Ga-67 scintigram was proved to be useful in differential diagnosis and estimating the activity of every diffuse pulmonary disease, such activity is usually hard to be estimated by chest X-P findings.


To assess prospectively the usefulness of Ga-67 imaging in abnormal shadow on chest roentgenogram, 78 patients were scintigraphed after intravenous injection of 3 mCi of Ga-67 citrate. Before and after Ga-67 scanning, the same physician completed two questionnaires indicating his differential diagnosis, diagnostic confidence (expressed as a percentage) and therapeutic plan, referring chest roentgenograms (posteroanterior and lateral views) and chest roentgen tomograms (frontal projection only).

The impact of the imaging of the physicians diagnostic confidence was expressed as a log-likelihood-ratio (LLR).

The mean log-likelihood-ratio (LLR) for this series was 0.19±0.308 (n=78), with 47 of 78 (60.3%) patients demonstrating a LLR, 0.00. In only two of 78 (2.6%) patients, a LLR greater than 1.0 was achieved.

These results reflect the little impact of Ga-67 scanning on the decision-making process for lung cancer.