
The criteria of the normal density of the Ga-67 uptake in the head and neck which is divided into 11 areas both in the anterior and lateral views were studied. The criteria of the normal density of the head and neck which is divided into 11 areas both in the anterior and lateral views were studied in the cases including 21 with normal, 50 with malignant tumor, 27 with benign tumor and 12 with inflammation. The ratio of the density in each normal area compiring with cerebral and lateral view were studied in the cases except laryngeal cancer, but it is useless in the orbital and nasal areas, in the front view.

GALLIUM SCINTIGRAPHY IN LUNG CANCER WITH SPECIAL REFERENCE TO DETECTION OF HILAR METASTASES. H.Hoshi, M.Katsuragi, K.Nishikawa, K.Yasumori, K.Watanabe. Department of Radiology, Miyazaki Medical College. Miyazaki.

Gallium scintigraphy was evaluated in 118 patients with pulmonary cancer, of which histological proof was obtained in 100 cases (41 with squamous cell carcinoma, 34 with adenocarcinoma, 24 with undifferentiated carcinoma and 1 with mixed type carcinoma), and others were clinically diagnosed as pulmonary cancer. The accumulation of gallium citrate in the primary lesion was classified into 4 grades of high, moderate, low and negative in comparison with that of vertebra and liver. The presence or absence of hilar lymph node metastases was histologically examined in 43 cases which thoracotomy or autopsy received. Result; 1) In the primary lesion, the positive rate in squamous cell carcinoma was 100% (29/29), 79% (23/29) in adenocarcinoma and 81% (15/16) in undifferentiated carcinoma. The incidence of high accumulation in squamous cell carcinoma was 60%, 10% in adenocarcinoma and 50% in undifferentiated carcinoma. 2) In the diagnosis of hilar lymph node metastases, the number of true positive cases was 16, that of false positive cases was 2, that of false negative cases was 8 and that of true negative cases was 17 out of 43 cases. The rate of sensitivity was 67%, that of specificity was 90% and that of correct diagnosis was 77%.


We discussed about the detectability of gallium scintigraphy for the adrenal metastases using a multiplane tomoscaner (PHO/CON). 14 cases with adrenal metastases were finally confirmed by autopsy. One case with adrenal granuloma was detected by a CT. 6 cases out of this 15 cases demonstrated a positive gallium scan of adrenal lesions. All of the adrenal lesions above 5 cm in diameter were positive.


Thirty seven bone scans and 28 liver scans were performed for the detection of metastasis in primary lung cancer. Tc-99m MDP (Methylene diprophosphate) 15mCi and Tc-99m Phytate 5mCi were used and a Anger type gammar camera (Searl PHO/Gamma LFOV) was employed.

In the series, positive studies were 8 of 37 bone scans (22%), and 2 of 28 liver scans (7%). Five of the eight (63%) cases with positive bone scans and one of the two (50%) cases with positive liver scans were formerly in the Stage III of UICC TNM Staging Classification (1978).

Bone scintigraphy is of considerable importance in the detection of bone metastasis for primary lung cancer. This radionuclide procedure should be performed especially to the Stage III patient.