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THE QUANTITATIVE ANALYSIS OF GA-67 UPTAKE IN THE HEAD AND NECK. M. NAKAZAWA, T. SHIRAIISHI, T. HASEGAWA, A. KOBAYASHI, Y. NISHIYAMA, H. UEHATA, Y. TANAKA. Kansai Medical University. Moriguchi.

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 view 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 comparing with cerebral area were measured, in the anterior view, it is 1.5-2 in the pericerebral area, 2-3 in the lacrimal, the maxillary, the parotid, the lateral cervical and the submaxillary areas, 3-5 in nasal, oral and the central cervical areas, and in the lateral view, 1.5-2 in the pericerebral, the anterior and posterior cervical areas, 2-3 in the lacrimal, orbital, nasal, and oral areas, 3-5 in the central cervical area, 4-5 in the parotid and the submaxillary areas. Large individual difference were showed in the nasal area of the anterior view, in the parotid and submaxillary areas of the lateral view. About the parotid area, significant difference between the malignant tumor and the benign tumor were appeared in the anterior view. Concerning the malignant neoplasia, our criteria is useful in the parotid area, the bilateral cervical areas and the central cervical area except laryngeal cancer, but it is useless in the orbital and nasal areas, in the frontal view.

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GALLIUM SCINTIGRAPHY IN LUNG CANCER WITH SPECIAL REFERENCE OF 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 114 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 lymphnode 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% (13/16) 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 lymphnode 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%.

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DETECTABILITY OF GALLIUM SCINTIGRAPHY FOR ADRENAL METASTASES. Y. Mori, Y. Fukuda, Y. Hata, N. Katsuyama and K. Kawakami. Dept. of Radiology, Jikei University School of Medicine. Tokyo.

We discussed about the detectability of gallium scintigraphy for the adrenal metastases using a multiplane tomoscanner (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.

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SIGNIFICANCE OF BONE AND LIVER SCINTIGRAPHY IN CLINICAL STAGING PROCEDURE OF PRIMARY LUNG CANCER. I. Odano, K. Sakai, M. Takahashi and H. Sueyama. Niigata University School of Medicine. Niigata.

Thirty seven bone scans and 28 liver scans were performed for the detection of metastasis in primary lung cancer. Tc-99m MDP (Methylene diphosphonate) 15mCi and Tc-99m Phytate 5mCi were used and a Anger type gamma 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.