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CLINICAL ASSESSMENT OF Ga-67-CITRATE SCINTIGRAPHY IN MALIGNANT MELANOMA. S.Kosuda, Y. Takagi, A.Kubo, S.Hashimoto, J.Satoh, M.Nakamura, Y.Yonahara. Ohkura National Hospital, Keio University School of Medicine, The 2nd Tokyo National Hospital. Tokyo.

Most of investigators have reported malignant melanoma is one of the tumors in which Ga-67 imaging is clearly useful. However the utility of Ga-67 citrate scintigraphy in malignant melanoma has scarcely reported in our country.

In a retrospective study of the value of Ga-67-citrate scintigraphy in cases of malignant melanoma, 63 scintigrams were obtained for 22 patients in our institutions.

The overall sensitivity, specificity and accuracy of the Ga-67-citrate scintigraphy for detection of affected lesions were excellent, that is, 85.7%, 100%, 95.2%, respectively. The smallest lesion that can be detected in this study was skin metastasis of 4mm in diameter. The life expectancy of patients with an abnormal scintigraphy was shorter than that of patients with a normal scintigraphy.

Ga-67-citrate whole body scintigraphy reliably indicated the extent of multisystem melanoma, and is of value in clinical management.

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GALLIUM-67 SCINTIGRAPHY OF HEAD AND NECK TUMORS WITH COMBINED USE OF CONVENTIONAL AND SPECT IMAGINGS. N.Yui, I.Ito, F.Kinoshita and M.Koakutsu. Chiba Cancer Center Hospital Chiba.

One hundred and fifty-nine patients with various tumors at head and neck region were performed scintigraphic examination using gallium-67 with combined use of SPECT to conventional imaging method. Ninety-six out of 122 malignant tumors showed positive results and in the half of the positive cases SPECT made much more accurate informations concerning the tumor localizations and extensions. Gallium-67 scintigraphy was also useful for the detection of distant metastasis and sometimes disclosed occult primary lesions. Furthermore, this examination has possibility to be used as a way to follow up after therapy. We think that gallium-67 scintigraphy is useful method for the diagnosis of malignant tumors at head and neck region, especially when used by combination of SPECT to conventional method.

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EXAMINATION OF NORMAL Ga-67 DISTRIBUTION PATTERNS. (COMPARISON OF EARLY AND DELAYED SCANS.) K.Higashi, S.Kobayashi, S.Hamada, T.Nishiki, I.Yamamoto, T.Okimura and T.Miyamura. Kanazawa Medical University.

This investigation was done in order to evaluate the Ga-67 distribution pattern of early and delayed scanning. Ga-67 scans were performed at 5hours (early scan : E) and 48hours (delayed scan : D) after injection of 3.0mci of Ga-67 citrate. The population studied consisted of 40 patients with expected normal Ga-67 distribution pattern.

The degree of Ga-67 uptake of each organ was graded 0-4 by comparison with Ga-67 uptake of femoral muscle and liver. A grading value of 0 corresponded with that of femoral muscle, 1 was more than that of femoral muscle but less than that of liver, 2 was that of liver and 3 was greater than that of liver.

The results showed that the Ga-67 uptake of heart and urinary bladder in the early scan (E) was significantly greater than that of the delayed scan (D). That of lung, nasopharyngeal space, testis and femoral muscle in the E scan was more than that of D scan.

That of salivary gland was same on E and D scans. That of colon, liver and lumbar bone was less than that of D scan. It was found that the Ga-67 distribution pattern was complex and there were many variations in Ga-67 distribution patterns relative to the time interval following injection.

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CLINICAL EVALUATION OF GA-67 SCINTIGRAPHY ON EXTRA-BONEMARROW LEUKEMIC MASS.

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Clinical evaluation of Ga-67 scintigraphy was examined on ten cases of extra-bonemarrow leukemic mass.

Pathological details of ten cases, ALL leukemic mass is 3 cases, AML leukemic mass is 6 cases and CLL leukemic mass is 1 case. In site of leukemic mass, Neck is 2 cases and mediastinal region is 8 cases.

Uptake of Ga-67 was seen in all cases of leukemia with extra-bonemarrow mass. In leukemic pathological type, Ga-67 uptake of ALL leukemia mass is more high than AML leukemic mass. Mediastinal leukemic mass was shown high uptake of Ga-67 compared with neck leukemic mass on our cases. It's considered that Ga-67 scintigraphy is useful in follow up of leukemic mass course and judgment of therapeutic efficacy.