The Detectability of the Tumor on $^{67}$Ga-Citrate Scintigraphy in Relationship with Location of the Tumor

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Four hundred ninety-one $^{67}$Ga-citrate scintographies performed on 456 patients during 4 year period from May 1971 to April 1975 were evaluated to see the relationship of the location of the tumor with its detectability on scintigraphy. The clinical significance of this examination was also studied.

The scintigrams were analyzed according to the location of the tumor. The following results were obtained:

1. Head and neck
   A high positive rate was shown in primary site of malignant lymphoma and maxillary carcinoma. As for the detection of the metastasis to the cervical lymphnodes, this examination proved to be no more informative than careful palpation.

2. Chest
   The invasion to the mediastinum and hilums by lung cancer, sarcoidosis and malignant lymphoma was often easily detected. The detectability of small peripheral lung lesions was inferior to the x-ray examination.

3. Abdomen
   The detectability of the tumor was not good except for large mass of malignant lymphoma and other sarcoma-like lesions.

Step-wise Diagnostic Approach to Abdominal Mass

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Various imaging modalities are available for the diagnosis of abdominal mass. We attempted to draw a step-wise flow chart for the purpose of quick, correct, inexpensive and non-invasive as possible diagnosis of the lesion using x-ray, $\gamma$-ray and ultrasound produced images.

1. Ultrasonogram provides good anatomical orientation and architecture of the lesion in most non-invasive fashion.

2. Scintigraphic image can be obtained with less effort of patient than arteriography and produce better delineation of smaller lesion than sonogram. The value of tumor scan will be greater if it evaluated in conjunction with sonographic findings.

3. The indication of angiography should be strict, even if it supplies greater morphologic information than sonogram or scintigram often.