uptake in benign and malignant breast lesions and female control subjects used in vitr otechnique (Love and Scott).

Benign and malignant breast lesions and control subjects between 15 and 83 years of age were studied (benign 15–63, malignant 32–83, female control 22–51).

The active uptake (ouabin blocked) was not significantly different between the three groups, but the passive uptake was slightly reduced two patient groups than female controls. However, between benign and malignant groups were not significantly different.

Scintigraphy of Malignant Tumor in Head and Neck

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The purpose of this paper is to evaluate the usefulness of ⁶⁷Ga-citrate and ⁹⁹ᵐTc-EHDP scintigraphy in diagnosis of tumors in head and neck.

Out of 56 cases, 37 proved cases with various head and neck malignancies were reviewed. Scintigrams were taken 48 hours and 72 hours after intravenous injection of 2mCi of ⁶⁷Ga-citrate and 3 hours after intravenous injections of 10 mCi of ⁹⁹ᵐTc-EHDP.

Abnormal area of radiopharmaceutical concentration was seen in 64% of ⁶⁷Ga-citrate-scintigraphy, especially prominent in thyroid cancer (undifferentiated adenocarcinoma) (4/4), malignant lymphoma (13/17), maxillary carcinoma (3/6).

All the false negative cases in this group were postirradiated cases. Laryngeal and pharyngeal cancer were all negative either irradiated or not. All the cases of undifferentiated adenocarcinoma of thyroid gland showed abnormal ⁶⁷Ga-citrate accumulation in the area seen as diminished radioactivity in ¹³¹I-scintigraphy.

9 cases of ⁹⁹ᵐTc-scintigraphy performed on patients with bony destruction on X-ray films showed abnormal RI concentration.

The conclusions are as follows:

1: ⁶⁷Ga-citrate scintigraphy are of little or limited value in early diagnosis of malignancies in head and neck, however, useful in investigation of the extent of involvement in determination of the field of radiation therapy and in evaluation of the therapeutical effect, and also much useful in classifying the stages of malignant lymphomas.

2: Double tracer method using ⁶⁷Ga-citrate and ¹³¹I appeared much useful.

3: Bone scintigraphy using ⁹⁹ᵐTc-EHDP is very useful in diagnosis of tumors in head and neck, because abnormal localized RI accumulation is frequently seen much earlier than appearance of abnormality on X-ray films.