

after irradiation, but there was no difference between these three groups.

4. Histology; The good responded group commonly showed well vascularity and spindle shape in cell type by preirradiated histological examination. On the other hand, the cases in poor responded group appeared relatively lesser vascularization and tend to keratinize histologically.

After the test irradiation, even for a week, the extent of cellular necrosis was often more evident in above cases than in follower cases. When the two extreme groups are compared

with, they may be presumed their radiosensitivity to some extent, but there are many difficult problems by the histological expectations alone.

An attempt was made to know the radiosensitivity of the cancer of the uterine cervix, but only a few corelationship was found in P-uptake and histological examination.

Since the problem of radiosensitivity seems to have many factors, the further investigations are necessary to dissolve this problem, we think.

Comparison of Scintillation Camera and Scintillation Scanner, Especially on Resolution

A. TSUYA

Radiology Dept., Cancer Institute Hospital

Y. ONAI, T. TOMARU, T. IRIFUNE and I. UCHIDA

Isotope Division, Cancer Institute

M. KIM

Internal Medicine, Cancer Institute Hospital

Method

The test chart was used, to discriminate minimum distance of line sources (1 mm), which was arranged pararely on the plain of 10.5×10.5 cm in size, with varying distance of 0.5, 1.0, 1.5, 2.0, 2.5 and 3.0 cm, respectively.

The sources used were ^{98m}Tc , ^{75}Se , ^{131}I and ^{195}Au .

Results

1. The resolution of scintillation camera increases as dot number increases, but decreases as energy of nuclides and window width increase.

With multihole collimator, the resolution decreases with increasing collimator-source distance, but with pin hole collimator it remains constant.

2. The resolution obtained was as follows.

Resolution of Scintillation Camera

Collimator		Pin hole		100 hole
Nucliees		^{195}Au , ^{131}I , ^{75}Se	$^{99m}\text{Tc}^*$	^{195}Au , ^{131}I , ^{75}Se , $^{99m}\text{Tc}^+$
Collimator-source distance	1 cm	1.0 cm	0.5 cm	1.5 cm } 2.0 cm, ^{75}Se , ^{99m}Tc
	5	1.0	1.0	1.5 } 4000 hole
	10	1.0	1.0	2.0
	15	1.5	1.5	2.5
Coment		* Resolution increases as energy decreases		+ ^{75}Se shows highest resolution

Resoulurion of Scintillation Scanner

Honey comb collimator	Half value width	Resolution
37 hole, 10 cm foocused	1.0 cm	1.0 cm
37 hole, 15 cm focused	2.0	2.0

3. The resolution of scintillation camera with multihole collimator was found to be the same to that of scintillation scanner. Scintil-

lation camera with pin hole collimator has superior resolution.

Scanning for Determination of the Invasive Anxume of
Maxillary Carcinoma

K. TESHIMA

Iwaki-municipal Hospital, Radiological Department

For the purpose of appear positive de-
lineation of the maxillary carcinoma by R.I.
scanning. In this method, RISA 50~100 μ Ci
and mixed with "splase" ferment was injected
into intra cavital tumor tissue of maxillary
cancer. By this injection, RISA infiltrate to

the tissue after 24 hours.
By the scanning apparatus with 3 inches
crystal and 27 holes collimeter, 7 cases of
maxillary cancer was examined and satisfac-
tory results.

Bone Tumor Scintiscanning with Strontium-85

H. OYAMADA, N. YUI, K. TAKASAKI and K. ARIMA

Division of Radiology

I. MAEYAMA and S. SATO

Department of Orthopedics

National Cancer Center Hospital

We have performed bone scintiscanning
with strontium-85 on 50 patients (56 portions)
from November, 1965 through August, 1967
at the National Cancer Center Hospital.
There were 14 cases of primary bone tumor,

and the scintiscanning was done on 15 por-
tions (9 malignant and 6 benign lesions). In
the cases with malignant bone tumor, 7 out
of 9 portions were visualized on the scan.
Two negative portions were osteogenic sar-