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

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Method
The test chart was used, to discriminate minimum distance of line sources (1 mm), which was arranged pararelly 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 ⁹⁹mTc, ⁷⁵Se, ¹³¹I and ¹⁵⁵Au.

Results

<table>
<thead>
<tr>
<th>Nucliees</th>
<th>¹⁵⁵Au, ¹³¹I, ⁷⁵Se</th>
<th>⁹⁹mTc*</th>
<th>¹⁵⁵Au, ¹³¹I, ⁷⁵Se, ⁹⁹mTc*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collimator-source distance</td>
<td>1 cm</td>
<td>1.0 cm</td>
<td>0.5 cm</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>1.0</td>
<td>1.0</td>
</tr>
<tr>
<td></td>
<td>10</td>
<td>1.0</td>
<td>1.0</td>
</tr>
<tr>
<td></td>
<td>15</td>
<td>1.5</td>
<td>1.5</td>
</tr>
<tr>
<td>Comment</td>
<td>* Resolution increases as energy decreases</td>
<td>* ⁷⁵Se shows highest resolution</td>
<td></td>
</tr>
</tbody>
</table>

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 Scanner

<table>
<thead>
<tr>
<th>Honey comb collimator</th>
<th>Half value width</th>
<th>Resolution</th>
</tr>
</thead>
<tbody>
<tr>
<td>37 hole, 10 cm focused</td>
<td>1.0 cm</td>
<td>1.0 cm</td>
</tr>
<tr>
<td>37 hole, 15 cm focused</td>
<td>2.0 cm</td>
<td>2.0 cm</td>
</tr>
</tbody>
</table>

3. The resolution of scintillation camera with multi-hole collimator was found to be the same to that of scintillation scanner. Scintillation camera with pin hole collimator has superior resolution.

Scanning for Determination of the Invasive Anxume of Maxillary Carcinoma

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For the purpose of appear positive delineation of the maxillary carcinoma by R.I. scanning. In this method, RISA 50–100 μCi and mixed with “splease” 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 satisfactory results.

Bone Tumor Scintiscanning with Strontium-85

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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 portions (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-