

Scintigraphy for Tumors in Neck

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The purpose of this report is to evaluate the usefulness of scintigraphy for diagnosis of tumors in neck.

Tumors in neck contain malignant and benign tumors, inflammatory tumor etc. in parotid gland, submandibular gland, thyroid gland and lymph node.

We performed scintigraphy using ^{99m}Tc , ^{131}I , and ^{67}Ga -citrate for differential diagnosis of these tumors.

The results are as follows:

Cases of adenocarcinoma and mixed tumor

showed abnormal RI accumulation, whereas chronic inflammation showed diminished radioactivity in ^{99m}Tc -scintigraphy of salivary glands.

This scintigraphy define the functional and morphologic characteristics of abnormal salivary glands.

Hyperfunctional disease showed abnormal RI accumulation, whereas adenocarcinoma and adenoma showed diminished radioactivity in ^{131}I -scintigraphy of thyroid gland.

Tumor-scintigraphy using ^{67}Ga -citrate did not necessarily show malignancy of disease.

The Diagnostic Value of Tumour Scanning in the Female Genital Tract

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Data obtained by the use of "indium-bleomycin" (^{111}In -BLM) from 30 cases of tumors of the female genital organ, were analyzed in our department to study its diagnostic value by means of comparing the results with the spreading and structure of tumors found in laparotomy.

The 30 cases consisted of 16 cases of carcinoma of the cervix uteri, 4 of ovarian carcinoma, 2 of vulva carcinoma, 2 of chorionic tumors and 6 other cases. In each of these cases, the patient was injected intravenously with 2.5 mCi, and the uptake of the radioactivity was measured with a scanner γ -camera twice, i.e., 24 hours and 48 hours later. A positive rate of 88.2% was achieved in the cases of carcinoma of the cervix uteri, 75.0% in the cases of ovarian carcinoma, 100% in the cases of vulva carcinoma. When these positive rates were classified histologically to squamous cell carcinoma, adenocarcinoma and others, an

effective rate of 90% was attained in the cases of squamous cell carcinoma, and 60% in the cases of adenocarcinoma: thus, ^{111}In -BLM, yielding positive images even in other malignant carcinomas than those on which bleomycin has been known to pharmacologically active, proved suitable for scintillation of a various histologic variety of malignant tumors. Because of less uptake by the intestinal tract, ^{111}In -BLM appeared suitable for scintillation of tumors of the female genital organs.

In view of these findings, "indium-bleomycin" has proved not only useful for diagnosing tumors of the female genital organs but also in examination of carcinoma of the cervix uteri for its indication for surgery, determination of the irradiation field, and judgement of the therapeutic effect of external irradiation in comparison with the state before the irradiation.