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CLINICAL EVALUATION OF GA-67 SCINTIGRAPHY IN LOCALIZED ABDOMINAL INFLAMMATIONS.

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Ga-67 scintigraphy in 63 cases of suspected localized abdominal inflammations was evaluated based on surgery and clinical follow up study. The true positive rate was 86% (36/42). There were six false negative cases with 5 almost healed inflammations and a case of tuberculous peritonitis. Only one false positive scan was seen in a retroperitoneal hematoma out of remaining 20 true negative cases. Ga-67 scintigraphy showed excellent sensitivity and specificity. However, only half of positive scintigraphy required surgical treatment. Clinical and other informations should be considered in decision of surgical treatment, when positive Ga-67 scintigraphy is obtained.

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RI-LYMPHOGRAPHY BY SUBMUCOSAL INJECTION OF THE RECTUM.

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We have already reported about the usefulness of RI-lymphography by rectal submucosal injection of radioactive colloids. Until now we became to know the followings. 1) The technique is easy. 2) There are no fear of side-effects. 3) The lymphnodes in the pelvis, especially the internal iliac nodes can be visualized. etc.

This time, we examined clinical efficacy of this method about 27 cases whose lymphnodes were confirmed by CT, lymphography, operation or autopsy. From our results, sensitivity was calculated to 91% and specificity 63%. As for internal iliac nodes, 5 positive sites out of 28 were wholly detected by this method, and false positive was 2 sites out of 23 negatives. That is to say sensitivity was 100% and specificity 91%.

This technique visualizes lymph flows and nodes specifically and systematically other than CT or US which only give us section images indiscriminately. From our results, this technique is considered to be hopeful examination for cancer of the rectum, uterine and prostate.

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VISUALIZATION OF THE REGIONAL LYMPH NODES FOR CARCINOMA OF THE ESOPHAGUS WITH Tc-99m RHENIUM SULFUR COLLOID LYMPHOSCINTIGRAPHY.

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Lymphoscintigraphies of esophageal carcinoma in 14 patients were studied with the aid of Tc-99m Rhenium sulfur colloid (Tc-99m-Re). Tc-99m-Re was injected into the submucosal layer of the esophagus (just above the oral side of the tumor) using esophagoendoscope, one or two days before operation. Lymphoscintigraphies at intervals of 1, 3, and 20 hours after the injection were performed. After that, the region and the number of the visualized (hot) nodes were assessed. Now after the operation, the lymph nodes were dissected and the hot nodes were determined by the scintiphotography. The dissected nodes were then studied histologically. A total of 223 nodes were removed from those 14 patients. Histologically, metastases were found in 23 out of 223 nodes. 43 of 223 (19.3%) could be observed visually on the scintigram and 180 (80.7%) could not. Among the visualized (as hot) nodes, 34.6% were positive for metastasis. On the other hand, among the not visualized nodes, only 4.4% were positive for metastasis. Hot nodes of the esophagus mean a high percentual probability of metastatic nodes.

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DIAGNOSIS OF EXTENSION OF CERVICAL CANCER BY USING RADIO-ISOTOPE (RI) LYMPHOGRAPHY.

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Diagnosing the extension of cervical cancer as objective image is indispensable for deciding the therapeutic policy. So we have originated RI lymphography with cervical submucosal injection and applied to the diagnosis of invasion of cervical cancer. (Materials) 48 cases of cervical cancer of stages I and II, in that the radical operation was performed, were selected as the materials. (Methods) The technique is, (1) Tc-99m sulfur colloid injection into cervical submucosa, (2) continuous two hours counting and recording of RI flow and accumulation into regional lymphnodes by using mini-computer, and (3) computerized analysis of obtained data. The RI imaging were compared with the histological findings of parametrial infiltration and the findings of palpation of that. (Results) 2 of these cases were excepted from analysis for reason of the difficulty of cervical submucosal injection. As a result of the histological examination, there were 5 metastasis to lymphnodes and 7 infiltrated parametria, but in the other 80 sides was not. True positive rate of RI lymphography was 90.9%, true negative rate was 78.8%. True positive rate of palpation was 90.9%, true negative rate was 57.5%. These results show that our new technique is very useful for evaluating the extension of cervical cancer easily.