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HEPATOBILIARY SCINTIGRAPHY FOR THE PATIENTS OF ENDOSCOPIC RETROGRADE BILIARY DRAINAGE. A.Tada, I.Tatuno, T.Takanaka, M.Yonoshima, T.Wakabayashi. Department of Radiology and Internal Medicine Kanazawa National Hospital, Kanazawa.

Endoscopic retrograde biliary drainage (ERBD) has several advantage over the percutaneous transhepatic technique, these include the simplicity of stent placement, absence of an external catheter, avoidance of complications, and physiological biliary flow. We performed hepatobiliary scintigraphy for the 10 patients of ERBD to evaluate pathophysiological biliary flow respectively. All cases showed obstructive jaundice before ERBD, those cause were carcinoma of bile duct, carcinoma of gall bladder, pancreas head carcinoma, carcinoma of papilla Vater and stone of common bile duct.

We report 2 cases of malignant disease who received external radiation therapy doing ERBD. When radiation therapy perform for the carcinoma of extrahepatic biliary system, ERBD stent tube become good anatomical maker and patients management may be very easy.

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THE ANALYSIS OF MUSCARINIC RECEPTORS ON RAT PANCREATIC ACINI BY USING I-125-QUINUCLIDINYL BENZILATE (QNB) AND H-3-N-METHYL SCOPOLAMINE (NMS). E.Aoki, H.Adachi, M.Noguchi, S.Satoh, S.Ohnishi, T.Honda and K.Torizuka. Kyoto University School of Medicine, Kyoto.

Two different tracers, I-125-QNB and H-3-NMS, were used to analysed the muscarinic receptors on dispersed pancreatic acini. The binding of both tracers to rat pancreatic acini reached a maximum after 30 min of incubation at 37°C and were specific and reversible. The binding of H-3-NMS to rat pancreatic acini was completely inhibited by various muscarinic receptor agonists and antagonists. On the other hand, the binding of I-125-QNB to rat pancreatic acini was completely inhibited by QNB, atropine and muscarine, but only partially inhibited by acetylcholine and carbachol. According to Scatchard analysis of the binding inhibition studies, the binding of NMS to rat pancreatic acini indicated a single binding site, whereas there appeared to be at least two binding sites for QNB. These results suggest the possibility that there is a lower affinity binding site for the muscarinic receptor, recognized only by I-125-QNB, in addition to the high affinity binding site recognized by both I-125-QNB and H-3-NMS.

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CLINICAL STUDY OF RECONSTRUCTIVE TECHNIQUE IN STOMACH CANCER USING BILIARY TRACT SCINTIGRAM.

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- I. Biliary tract scintigraphy, a non-invasive test, was performed before and after operation for stomach cancer, and the relationship of the operation procedure to the biliary function was examined.
- II. In 36 patients with stomach cancer divided by the operation procedure into I and II groups, preoperative and postoperative time activity curves for the common hepatic duct and the gallbladder were obtained, from which T max and T 1/2 values were calculated, and these values were compared between groups.
- III. No significant difference was detected between groups in respect to T max for the common hepatic duct, as the values were widely scattered and the standard deviation was great. T max values for the gallbladder showed a slight post-operative delay in II group.
- IV. T 1/2 values for the common hepatic duct also showed that the activity was delayed in II group as compared with that in I group.

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CHARACTERIZATION OF CHOLECYSTOKININ (CCK) RECEPTORS IN PANCREATIC ACINAR CELL. T.Honda, H.Adachi, M.Noguchi, S.Sato, E.Aoki, S.Onishi and K.Torizuka. Dept. of Nuclear Medicine, Kyoto University, Kyoto.

To characterize CCK receptors on rat pancreatic acinar cell and its membrane fraction, we prepared I-125-Bolton Hunter reagent and radioiodinated porcine CCK-33. Specific activity of I-125-BH-CCK was 169  $\mu\text{Ci}/\mu\text{g}$ . I-125-BH-CCK stored at -20°C was stable until 5 weeks. The specific binding of I-125-BH-CCK to acinar cell at 37°C was rapid and reversible, being half-maximal at 8 min and maximal at 45 min. I-125-BH-CCK binding to acinar cell and its membrane fraction were competitively inhibited by increasing concentration of CCK-8 but not by insulin and VIP. On acinar cell, scatchard analysis of binding was compatible with two classes of binding sites: a high affinity site ( $K_d=74.7\text{pM}$ ) and a lower affinity site ( $K_d=6.8\text{nM}$ ). On membrane fraction, however, only a lower affinity site was detected ( $K_d=2.1\text{nM}$ ).