

Clinical Assessment of Pancreas Pattern Classified in Combination with Two Colour Mode Checking of Pancreas Duct Stenosis and Pancreas Mobility

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Two colour mode consist on two monochrome-type TV cameras, colour mixer and colour TV may add useful information in clinical diagnosis of pancreatic injury.

For detection of pancreas duct stenosis (P.D.S.) and pancreas mobility (P.M.) was used the PHO/GAMMA H P scintillation camera.

As an agent, 100 μ Ci 75 Se-selenomethionine injected intravenously in each case.

In the pattern combined negative PDS (Pancreas Duct Stenosis) and positive M (Mobility), was included normal pancreas (103/147: 70.1%) chronic pancreatitis (33/147: 22.4%) acute pancreatitis (8/147: 5.4%) and partial pancreatectomy (3/147).

In the pattern combined negative PDS and negative M, was included chronic pancreatitis

(20/27: 74.0%) partial pancreatectomy (2/27: 7.4%) metastatic carcinoma of the pancreas (2/27: 7.4%) acute pancreatitis (1/27: 3.7%) and pancreatolith (1/27: 3.7%).

In the pattern combined positive PDS and positive M, was included acute pancreatitis (5/12: 41.7%) chronic pancreatitis (2/12: 16.7%) pseudocyst of the pancreas (2/12: 16.7%) pancreas carcinoma of the tail (1/12: 8.3%) partial pancreatectomy (1/12: 8.3%) and duodenal diverticulum (1/12: 8.3%).

In the pattern combined positive PDS and negative M, was included metastatic carcinoma of the pancreas (34/87: 39.0%) pancreas carcinoma of the body (26/87: 30%) pancreas carcinoma of the head (20/87: 23.0%) chronic pancreatitis (4/87: 4.6%) and acute pancreatitis (3/87: 3.4%).

Application of the Multiple Isotope Method in Demonstration of the Space Occupying Lesion of the Pancreatic Scingraphy

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Double isotope method with subtraction imaging was evaluated in pancreatic scintigraphy and the results of a basic experiment with multiple isotope method was reported in this paper.

With a computerized scinticamera system, Au-198-colloid and Se-75-selenomethionine were simultaneously injected and recorded by a "histogram" mode in double isotope method, and in multiple isotope method a "list" mode was used for data collection.

Results

Nine cases with space occupying lesion were obtained by subtraction imaging of 40 cases and

final diagnosis were obtained in 7 of 9 cases. Six cases (86%) were confirmed by surgical operation or by sutopsy.

In phantom study of multiple isotope method, clear separated peaks of Au-198, Se-75 and Ga-67 were obtained by spectrometry from gammacamera and after setting energy level of gamma-camera to the peak, clear separated images were illustrated on CRT.

This results showed that pancreatic tumors could be demonstrated as clear positive images by multiple isotope method using Ga-67 as a diagnostic agent for tumor.