Pancreas Scanning with $^{75}$Se-Selenomethionine

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Using $^{75}$Se-selenomethionine some experiences of pancreas scanning and the evaluation of its clinical usefulness were reported. Shimadzu-scanner with 3" NaI crystals, 10 or 5 cm focusing collimeter and spectrometer was used, and dot-and photoscans were performed. The intravenous administration dose of $^{75}$Se-selenomethionine was 3 to 3.5 $\mu$Ci/Kg. To enhance the accumulation of selenomethionine skim milk and glutamic acid and hydrochloric acid were administered before and after $^{75}$Se-selenomethionine according to Sodee's method. In our experience this procedure gave good results in comparing with the use of pancreozymin and (or) sekretin. No pretreatment other than breakfast gave good result in normals but in chronic pancreatitis the accumulation of selenomethionine in the pancreas seemed to be poorer.

The space occupying lesions detected by this scanning were generally confirmed by surgical findings including cancer and cyst. In many cases of chronic pancreatitis the decreases of uptake of $^{75}$Se-selenomethionine in the pancreas were observed, when compared with the count rate over the liver and background. In a case with the enhanced calcification the pancreas was hardly seen. It can be easily considered that the uptake of $^{75}$Se-selenomethionine is influenced by impaired protein synthetic function in chronic pancreatitis. In our experiences, it seems to be useful for diagnosis of chronic pancreatitis to evaluate the activity of $^{75}$Se in the pancreas comparing with that in the liver or background, in addition to the pancreas scanning, although the further examination is required to establish the usefulness.

Application of Splenic Scintiscanning: Quantitative Estimation of Size of the Spleen and Examination of its Sequestration Function

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With recent development of the technique, scintiscanning of the spleen can be easily carried out and its clinical uses, which had rested on morphological diagnostic value, adorned itself with functional implication. For the purpose of its application to the investigation of the splenic diseases, some fundamental studies besides clinical application were performed in our laboratory as to quantitative assessment of splenomegaly and examination of its function. In this report results were presented and some problems were discussed.

"Methods and clinical uses."
Red cells labeled with $^{51}$Cr and damaged by heat-treating, or labeled and damaged by treatment with $^{203}$Hg or $^{197}$MHP, are widely used for scintiscanning of the spleen. Several problems especially concerning advantages and disadvantages of these methods