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AN EVALUATION OF PANCREAS SCINTIGRAM AS A PANCREATIC FUNCTION TEST. H. Mitsuhashi, J. Hirose, K. Hayasaka, S. Nishino, A. Asano and K. Amoh Department of Radiology, Asahikawa Medical College, Asahikawa

Although Se-75 Selenomethionine is still widely used agent for pancreatic imaging, it has several serious disadvantages such as a low uptake in the pancreas and the long physical half lives of the tracer. Therefore, we now hope the possibility of developing the newer agent for pancreatic scintigram.

An evaluation of Se-75 selenomethionine scanning as a pancreatic function test was done and the following results were observed:

1. The uptake of Se-75 selenomethionine by the pancreas was evaluated in 56 patients and compared with the pancreozymin-secretin (PS) test.

2. In groups of patients with severe decreased uptake of the pancreas closely paralleled to the diminished exocrine function, whereas the patients with normal uptake were normal exocrine function.

3. The pancreas scintigram was possible to use for the evaluation of a pancreatic function.

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EVALUATION OF GASTROINTESTINAL BLEEDING BY RED BLOOD CELLS LABELED IN VIVO WITH Tc-99m Y. Kobayashi, A. Furuta, S. Takebayashi, Y. Nakasima, K. Asakura, Y. Ono, K. Matsui, T. Nozawa, Kantou Rousai Hospital, Yokohama City University Hospital, Kawasaki, Yokohama.

To determine if blood pool tracers can detect intermittent GI bleeding, abdominal gamma camera scans were performed on 13 patients with suspected GI bleeding. Control subjects with uterine myoma were also examined. Site of bleeding was determined in seven of the 13 patients by endoscopy or surgery. Two of these had tracers collections in the bowel segments indicating GI bleeding. They had gauzeoma of the terminal ileum and leiomyoma of the jejunum. Their estimated bleeding rates were 200 ml and 600 ml/24 hours respectively. RI scan would be useful screening examination in GI bleeding to help determine the indication and timing of angiography.

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DIAGNOSIS OF SALIVARY GLAND LESIONS BY RI SIALOGRAM ($^{99m}\text{TcO}_7$) -Time-activity curve and histological findings- T. Yamazaki,* S. Takeda,* F. Nakanishi,** T. Kasuga,** S. Takamoto,*** H. Hirano.*** *Department of Dentistry and Oral surgery, **Department of Radiology, ***Radiological department, Shinshu University School of Medicine

The time-activity curve of RI sialogram and histological findings in 12 patients (salivary tumor 4 cases, sialolithiasis 3 cases, sialadenitis 5 cases) were compared. The following results were obtained: (1) Salivary gland, invaded with malignant cells, did not take up $^{99m}\text{TcO}_7$ reflecting the decrease of salivary cells and increase of tumor cells in the salivary gland. (2) Accumulation and excretion of $^{99m}\text{TcO}_7$ were decreased in salivary glands with inflammation and sialolithiasis, reflecting the obstruction and inflammation around the salivary duct. In order to study the mechanism of the fact (2), *E. coli*. (10^8 /ml) was injected into submandibular gland of rabbit and RI sialogram with $^{99m}\text{TcO}_7$ was done. In this experiment we obtained the same results seen in the patients with inflammation of salivary gland. RI sialogram seems to be useful to diagnose lesions salivary gland.

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SEQUENTIAL SALIVARY GLAND SCINTIGRAPHY IN DIAGNOSIS OF SJÖGREN'S SYNDROME. Y. Takagi, K. Sanmiya, A. Kubo, M. Ando, K. Ikari and Y. Murakami Department of radiology and Otolaryngology, School of Medicine, Keio University. Tokyo

It has been pointed out previously that Sjögren's syndrome produce bilateral decreased function of salivary glands. In this study, sequential radioisotopic salivary gland scintigraphy, contrast sialography and lavial salivary gland biopsies were performed in 46 patients suspected Sjögren's syndrome. Of these cases, 15 were finally diagnosed as definite Sjögren's disease on the criteria by Sjögren's syndrome Committee of the Ministry of Health and Welfare, 13 were diagnosed subclinical types and 18 were normal salivary glands.

Following injection of 5mCi Tc-99m per technetate, sequential imaging and sialodynamic curve of each parotid gland were taken by LFOV scinti-camera and computer system (Scintiview). Subsequent analysis of parameters reflecting salivary gland function demonstrated two types of disease within the group which showing bilateral decreased radioisotope uptake. The cases of definite Sjögren's disease showed decreased function in both radioisotope concentration and salivary excretion. On the other hand, the cases of subclinical Sjögren's disease showed disability in concentrating radioactivity but excretory functions were almost normal.