

IS-12 Dual Isotopes (Tl-201 & Tc-99m) SPECT Studies In Detecting Lesions of The Salivary Glands .

A.S. Arbab, K. Koizumi,* K. Toyama, T. Arai, T. Yoshitomi, T. Araki (Yamanashi Med. Univ, * Tokyo Med. Univ.)

Dual isotopes SPECT acquisition is performed to determine the sensitivity and specificity of Tl-201 in detecting malignant tumors of the salivary glands.

To-date 11 patients with histologically proved salivary gland lesions have undergone this study. After simultaneous injection of Tc-99m-pertechnetate (Tc-99m) and Tl-201, projection data are obtained at 10 minutes and 2-3 hours for early and delayed images by a triple head gamma camera. After reconstruction both Tc-99m and Tl-201 images are assessed visually for the lesions. For semiquantitative analysis early (EUR) and delayed uptake ratio (DUR), and retention index (RI) of Tl-201 are calculated by drawing ROIs on the lesions and in normal gland.

All tumors showed cold area on Tc-99m images except Warthin's tumor. All benign lesions except Warthin's tumor showed various degrees of activity with a RI of less than one on Tl-201 images. Malignant tumors showed uptake with a RI of more than one on Tl-201 images.

Dual isotopes SPECT study would increase the sensitivity and specificity in detecting malignant salivary gland tumors.

IS-13 RADIONUCLIDE EVALUATION OF ESOPHAGEAL MOTILITY FUNCTION IN PATIENTS WITH ESOPHAGEAL CARCINOMA PRE AND POST RADIATION THERAPY

Mijatović Lj, Jeremić B., Matović M. (Univ. Clinical Center, Kragujevac, Yugoslavia)

Radionuclide esophageal transit study (RETS) was performed to evaluate quantitative and qualitative esophageal transit. The study included 21 patients, 14 healthy volunteers as controls and 7 with esophageal carcinoma (EC) which underwent concurrent accelerated hyperfractionated radiation therapy (RT) with 54 Gy in 36 fractions in 18 treatment days (1.5 Gy b.i.d.) and chemotherapy consisting of 4 cycles of CDDP/5FU. Single swallow method for 30 sec. was used. In 14 control subjects esophageal transit values (ETV) were within normal range (90%). In patients with EC pre RT ETV were 65%. Reduced ETV pre RT were near normal range immediately post RT, while two months after RT were 60-65%. Obtained results lead to conclusion that RETS could be a valuable test of effects of RT and its following up.

IS-14 Scintigraphic Evaluation of Gastroparesis in

Patients With Diabetes Mellitus (*Ongoing*).

C Dado-Dalupang, E Vinegas-Alcantara, JFY Santiago, EA Judan, HS Gomez, JF Torres, Jr.. (Santo Tomas University Hospital).

This study aims to characterize the gastric emptying of a radioactive solid test meal in Filipinos with non-insulin dependent diabetes mellitus as compared with a group of healthy controls. 20 patients with symptoms of gastroparesis and 20 controls underwent gastroscopic/radiologic examination and hepatobiliopancreatic ultrasonography to rule out any organic lesions. Gastric emptying was measured using a Tc-99m phytate-labelled scrambled egg fed to the subjects and a Toshiba single head SPECT gamma camera. A time-activity curve of the stomach was generated for each subject. Patients with delayed gastric emptying were divided into two groups; one group was given five mg cisapride (Prepulsid-Janssen) three times a day for three weeks and another group was given placebo. Radionuclide gastric emptying was repeated at the end of three weeks. The results and conclusions drawn from the study were discussed.

IS-15 Role of Tc 99m- Sucralfate in Ulcerative Colitis

Rakesh Kumar, A Malhotra, AK Pandey, GS Pant, Patel Chetan (AIIMS, New Delhi 110029, India)

Sucralfate scintigraphy has been successfully employed to detect peptic ulcers. This study was planned to assess the role of sucralfate scintigraphy in the management of ulcerative colitis.

We studied 10 patients under two groups (5 controls and 5 patients of ulcerative colitis). After an overnight fast all patients were given Tc-99m-Sucralfate (5 mCi) followed by 400 ml of water and metaclopramide orally. Serial abdominal scans were taken at 2, 4, 6 and 24 hrs. Results were compared with endoscopic findings. In the control group the study was negative for disease in 4 out of 5 patients. In the second group the study was positive in all patients.

We conclude that sucralfate scintigraphy is simple, noninvasive and capable of detecting active inflammatory bowel disease.

IS-16 Spontaneous perforation of CBD in infancy

Rakesh Kumar, Padhy A.K., Pandey A.K., Dilip S., Srilatha (AIIMS, New Delhi 110029, India)

Spontaneous perforation of CBD in infancy is a rare but important condition. Early diagnosis and treatment makes prognosis excellent.

This report is of a 2 month old child who presented with jaundice, failure to thrive and abdominal distention. Sonography findings revealed a choledochal cyst. A Tc-99m-Mebrofenin scan showed good isotope uptake with an early excretion into a locule at porta hepatis. No bowel was visualised but free radiopharmaceutical was seen in the abdomen at 1, 2, 4 and 24 hours post injection. On scintigraphic findings a diagnosis of spontaneous rupture of CBD was made which was confirmed on laparotomy.

In conclusion Tc-99m-Mebrofenin scintigraphy allows safe, accurate and high resolution imaging of the hepatobiliary tree in diagnostic evaluation of a jaundiced infant.