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THEORETICAL ANALYSIS ABOUT EARLY DETECTION OF HEPATOCELLULAR CARCINOMA BY MEDICAL IMAGING PROCEDURE. I.Odano and K.Sakai. Niigata University School of Medicine. Niigata.

It is well-known that patients with chronic hepatitis and liver cirrhosis are frequently accompanied by hepatocellular carcinoma (hepatoma). They are called high risk group for hepatoma. In order to detect a small hepatoma, it is reasonable for us to perform screening examinations on these high risk group patients. Optimal screening interval, however, has not been established.

In this report, a theoretical analysis was made to estimate optimal screening interval by imaging procedure such as ultrasonography, x-ray computed tomography and scintigraphy.

By the analysis of eight cases, mean doubling time of hepatoma was estimated about four months (73-143 days). If we want to detect a hepatoma not greater than 3.0 cm in diameter, medical screening procedure combining ultrasonography and scintigraphy should be performed once per about nine months.

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COMPUTERIZED SCINTIGRAPHIC FINDING RECORDING AND REPORTING WITH VOICE ENTRY. F.Shishido, Y.Tateno, T.Yamasaki, T.Matsumoto, T.Iinuma. National Institute of Radiological Sciences, Chiba.

An automatic data acquisition and reporting system with voice entry have been developed. This system consists of micro-processor PC-8800 (NEC) and speech recognizer DP-200 (NEC). First we applied this system for liver scintigraphy. The scintigraphic findings were entered from speech recognizer about following items in Japanese. (i) Patients name and their identities, (ii) liver findings except SOL, (iii) SOL in liver, (iv) spleen findings, (v) bone marrow findings, (vi) diagnosis. After entering scintigraphic findings and diagnosis, scintigraphic report are printed in Japanese and Chinese characters with printer. Time from inputting scintigraphic findings and diagnosis to outputting the report is about 2 min for normal case and about 6 min for the case with liver metastasis. For this system, radiologist was able to observe the scintigrams continuously during the data input.

This system may be useful for assessment of clinical efficacy study.