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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 ultra-
sonography, 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 acuisition and repor-
ting system with voice entry have been
developed. This system consists of micro-
processor PC-8800 (NEC) and speech recog-
nizer DP-200 (NEC). First we applied this
system for liver scintigraphy. The scinti-
graphic 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
peport is about 2 min for normal case and
about 6 min for the case with liver meta-
stasis. 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.