

tract and if it is on the left lower part, decreased effective liver flow, and general

cardiovascular disorder or proliferation of the liver stroma are suggested.

A Hepatic Function Test by Radioisotopes

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1) A method for estimation of the hepatic function were presented using radiogold (^{198}Au) and ^{131}I labeled rose bengal dye.

2) Continuous recordings of external counting were performed by four scintillation counters (two of $2 \times 3 \phi$ inches) and two of $2 \times 2 \phi$ inches NaI X tals) which were connected to pulse-height analyzers, rate meters and with a four channel tape-recorder and a two penrecorders. The probes were collimated with lead and one of them placed on a little up to the heart and the another on the right lobe of the liver.

3) The Radiogold was injected into the antecubital vein. Two curves (liver and heart) were analyzed by substraction each other to

estimate the true ^{198}Au concentration in blood and ^{198}Au in liver. The blood samples being collected after injection, radioactivities of the samples were measured by a well-type scintillation counter. Comparing both data of calculating and blood sampling, this method seemed to be reliable.

4) Injecting ^{131}I labeled rose bengal dye into antecubital vein and sampling bile from duodenum, the excretion of the dye was delayed in hepatitis compared to normal cases.

5) The curve obtained from a counter on the liver was expressed as a straight line on a bi-logarithmic paper, and some difference in slope was found between normal group and patients with liver diseases.

Classification of ^{198}Au Liver Scintigram Patterns and Their Diagnostic Approach

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A new information of a relationship between the patterns of the ^{198}Au liver scintigram and the liver diseases is reported. 631 liver scans by colloidal radiogold (^{198}Au) were performed on 517 patients during the period between May 1962 and July 1965. Established diagnosis were given on 301 patients by

- 1) autopsy
 - 2) surgical exploration
 - 3) needle biopsy or peritoneoscopy
- and

4) clinical course and clinical finding (followed up over 2 years).

301 liver scintigrams were classified into the following patterns in accordance with the size, shape, position and internal configuration of the liver and the degree of the spleen visualization.

- 1) Standard (pattern)
25 of 33 cases which showed this pattern were proved to be normal.
- 2) Spleen visualization
- 3) Mild hypertrophy of the left lobe.