

in the left testicle since 2 years ago which has grown very slowly, then he had it no concern.

He underwent the extraction of the left testicle and histological finding demonstrated seminoma. We diagnosed that the tumor in the abdomen was metastasis of the seminoma and  $^{60}\text{Co}$ -therapy was maintained for 24 days. No tumor was palpable in the left hypochondrium. He has been well since then.

The second case is 27-year-old man who has complained of general fatigue since 1 month before admission.

The tumor was palpable 5 finger-breadths below the left costal margin.

We had normal scintigram of the spleen and abnormal scintigram of the left kidney by the injection of  $^{203}\text{MHP}$ . Also, in the intravenous pyelography, pelvis of the left kidney was subnormal.

We diagnosed him suffering from the tumor of the left kidney.

Nephrectomy was done. The histological finding demonstrated papillary carcinoma of the kidney.

We think that scanning of spleen and kidney by the injection of  $^{203}\text{MHP}$  is very effective as differential diagnosis of the tumor in the left hypochondrium.

## Comparative Studies of Splenic Scintigram and Removed Spleen

K. ARAKI and N. KATAYAMA

*Second Department of Internal Medicine, Kumamoto University Medical School,  
Kumamoto*

M. MATSUMOTO

*Department of Radiology, Kumamoto University Medical School, Kumamoto*

Splenic scintiscanning using  $^{203}\text{Hg}$ -MHP has been performed in 97 cases of various diseases, especially blood disorders. Eight to 10 ml of whole blood was withdrawn from antecubital vein into syringe containing 100 to 150  $\mu\text{Ci}$  of  $^{203}\text{Hg}$ -MHP with 1.1 to 1.8 mg of stable MHP, the syringe was inverted several times while only the needle was kept in the vein. Immediately after that, the blood labeled with  $^{203}\text{Hg}$ -MHP was injected into the patient through the keeping needle. Scanning procedure was carried out 50 to 60 minutes after injection, first in prone position, second in right lateral and finally in spine. In 31 cases (10 of autopsied and 21 of splenectomized), splenic scintigram were compared with removed spleen of which the size and weight were measured. Considerable relationship between the maximums of the scan length and width obtained from 3 directions and those of actual spleen was observed. The maximum of

the scan area of normal spleens which were 80 to 130 Gm in weight, indicated within 75  $\text{cm}^2$ . If the spleen is rectangular cube in shape, the volume should be estimated by the following formula;

$$\text{Splenic Volume}(\text{cm}^3) = \frac{\text{Lateral Scan Area}(\text{cm}^2) \times \text{Anterior or Posterior Scan Area}(\text{cm}^2)}{\text{Height}(\text{cm})}$$

According to the correlation of the actual splenic weight and the estimated splenic volume, 31 cases were divided into 3 groups and the relationship between the actual splenic weight (Wg) and the estimated splenic volume ( $\text{cm}^3$ ) was as follows:

I Hemolytic Anemia	$W = 0.717V + 44$
II Banti's Syndrome	$W = 0.372V + 121$
III Other Diseases	$W = 0.278V + 10$