

by our NOVA 1200 computer. This function can be expressed in the form,

$$C(t) = K(t - t_a)A_e - (t - t_a)/B$$

t = time after injection

$C(t)$ = indicator concentration at time t

K = constant scale factor

t_a = appearance time

A, B = arbitrary parameters

From these evaluations parameters A, B, K , and the mean circulating time (MCT) were calculated.

In cases with ulceration of the finger parameter A was less than normal, parameter B was greater

than normal, parameter K showed no deviation either way, and the MCT was slower than normal. The high values of B are consistent indicators of abnormal curves.

The radiation dose delivered to the patient and the dosage to the physician in administering the 10 mCi of ^{99m}Tc pertechnetate were estimated.

The radiation dose of the patient at the surface of the neck, anterior chest, abdomen, and bilateral inguinal regions was from 100 mrad to 300 mrad; the physician's right second finger, 100 mrad to 300 mrad.

Diagnosis of the Aortic Aneurysm with Sequential RI-angiography

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With sequential RI-angiography investigation was carried out on 23 cases of thoracic aortic aneurysms. Eleven were fusiform, 8 were saccular and 4 were dissecting aneurysms.

Fifteen to twenty millicuries of ^{99m}Tc -human serum albumin contained in a volume of less than 1 ml was injected as a bolus into the antecubital vein and with rapid sequence camera (35 mm film) or multifram camera the initial bolus images were obtained, which were of better quality than static blood-pool images taken later from various angles.

This non-invasive method is capable of accurate diagnosis in the thoracic aortic aneurysms, differential diagnosis between fusiform and saccular types being without difficulty. As far as our 4 cases of dissecting aneurysm are concerned, no

clear-cut findings can be pointed out by this method.

Criteria: 1) If there is widening and blood-pooling in some part of the aorta, one can diagnose aneurysm. 2) However, even if there is no such aortic widening or pooling, one can not exclude an aneurysm filled with thrombus. 3) It is difficult to diagnose dissecting aneurysm only by this method. 4) The mediastinal tumor near the aortic arch is different from aneurysm in sequential angiographic image, so this method is useful for differential diagnosis of the mediastinal tumors.

Since most of the patients with possible aneurysm are aged and arteriosclerotic, this simple and non-invasive diagnostic method should be the first choice in evaluation of such patient.

Study on the Splanchnic Circulation Using Microspheres Labeled with Radioisotopes The Effects of Pentobarbital and Bucolome

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The authors previously reported the increase in portal blood flow by bucolome administration in unanesthetized rats. (Miura & Kitani, Jap. J. Nucl.

Med. 12: 598, 1975) In the present study, the effects of pentobarbital anesthesia and bucolome on splanchnic circulation in anesthetized rats were