

on the contrary, distributed in relatively narrow range, $0.196-0.218$ ($M \pm SD$ 0.207 ± 0.001). In ten cardiac patients, there were a positive correlation between their FF's and vascular resistance ($r=0.80$), which is compatible with other papers. In nineteen subjects of known essential hypertension, their FF's were higher than normal when mean blood pressures (MBP) were higher than 115 mmHg, which is also compatible with reports available, while their FF's were lower than normal when their MBP were less than 95 mmHg, which has not been reported. According to MBP of (i) $MBP > 115$ mmHg, (ii) $115 > MBP > 95$ mmHg, (iii) $MBP < 95$ mmHg, their FF's were 0.224 ± 0.02 , 0.192 ± 0.01 , and 0.175 ± 0.001 respectively, and they were statistically significantly different.

In five patients with primary aldosteronism, their FF's were 0.14, 0.14, 0.17, 0.17 and 0.18, significantly lower than normal. In one case, after the removal of the space occupying lesion, FF was returned to normal, 0.21, with simultaneous decrease of RPF from 460 ml/min to 300 ml/min. Renin activity in plasma was almost null before the operations, which returned to normal after the operation.

Conclusion: FF's were maintained in a relatively narrow range in normal subjects, and in patients with essential hypertension it is blood pressure-dependent, while in patients with primary aldosteronism, it was lower than normal even if blood pressure was high. Therefore, we can conclude that, renin is or may be, responsible to maintain FF in a normal range.

Quantitative Analysis of Radioisotopic Angiography in Trophoblastic Neoplasia

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The diagnostic significance of radioisotopic angiography in clinical management of trophoblastic neoplasia was studied by analyzing the RI dynamic curve obtained by processing sequential image with a computer assisted scintillation camera.

In the method, 8 mc/10ml. of ^{99m}Tc -pertechnetate was infused into abdominal aorta and the displacement of RI in the pelvic cavity was detected by scintillation camera, and sequential image of RI was recorded in real time on a videotape.

Playback of the videotape displayed hot image of RI expressing the trophoblastic neoplasia on the C.R.T.

The split area was provided in the hot image which stands for a tumor and radioactive transition in the area with time course were processed in the multichannel scaler mode with a computer. Then, the RI dynamic curve was obtained.

Quantitative diagnosis of the size of tumor would be possible by measuring total radioactivities that flowed through the tumor nest.

For this purpose, it is fitted to linear function with regard to the dilute slope consisting of each RI count from 16 sec. to 51.2 sec. after RI infusion, based on the method of least squares. Then the area which is surrounded by this linear line and the RI dynamic

curve were computed by mean of the numerical integration.

This computation was applied to each cases of trophoblastic neoplasia, to find the relation

of the total RI count to the size of tumor, and a highly significant correlation was noted between them.

On α -Fetoprotein in Pregnancy and in the Tumor of Women's Genitals

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We report the results of our determinations of AFP in women's tumor and of the fluctuations of AFP values in pregnancy and in abnormal pregnancy. The concentration AFP in the amniotic fluid and/or in the serum were determined with radio-immunoassay, in the cases of normal pregnancy, toxemia, placenta previa, hydatidiform mole, intra uterine fetal death, anencephalia, threatened abortion, ovarian tumor, chorionepithelioma, cervical carcinoma and malignant melanoma as subjects.

The results showed that the mean AFP values of the maternal serum in normal pregnancy were below 10ng/ml in first trimester, which were not significantly different from the serum AFP values in non-pregnant women. Serum AFP values gradually increased every month, rising sharply in the seventh month of pregnancy, reaching the maximum levels in the eighth month and slightly decreasing in

the tenth month.

Serum AFP values comparing in placenta previa and toxemia to in normal pregnancy revealed no differences. In anencephalia, AFP values showed abnormally high levels both in the maternal serum and in the amniotic fluid. This phenomenon was also observed in cases of intra uterine fetal death.

However, AFP concentration in the maternal serum in the case of hydatidiform mole showed much lower levels than in normal pregnancy in corresponding gestational age. In the fourth month of pregnancy, values of AFP after curettage were higher than those before curettage. However, in the preceding months this phenomenon was not observed.

Serum concentration of AFP in cases of chorionepithelioma, cervical carcinoma ovarian tumors and malignant melanoma presented lower levels.