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CLINICAL EVALUATION OF ARTERIAL STENOSIS IN 
ASO BY RI ANGIOGRAPHY. K.Hayashida, 
K.Nishimura, T.Takahara, H.Naito, T.Yamaguchi, 
T.Sugawara, T.Kozuka, T.Adachi, N.Nakajima, 
U.Ishikawa and R.Nakayama** National 
Cardiovascular Center, Dep.of Radiology, 
Dep.of Surgery** Dep.of Internal Medicine**

The findings of arterial stenosis by RI 
angiography were compared with those by 
contrast arteriography in ASO of 50 cases. 
The results of the comparison were as 
follows: 50% stenosis; coincident 32.3%, 
mistaken 38.7%, 75% stenosis; coincident 47.1%, 
mistaken 5.8% and more than 90% 
stenosis; coincident 76.7%, mistaken 3.3%. 
For the quantitative evaluation of the 
arterial stenosis, the mode of transit time 
(M.T.T.) was taken to differentiate dynamic 
curves of which ROI’s set in both iliac 
region, bifurcation, and abdominal aorta. 
Then, the subtracted M.T.T. in the iliac 
region was taken to subtract the mean M.T.T. 
of bifurcation and abdominal aorta from 
M.T.T. in each iliac region.

The subtracted M.T.T. was graded in 
normal; 1.26±0.084, 50% stenosis; 2.45±1.275, 
75% stenosis; 3.64±1.38s and more than 90% 
stenosis; 4.26±1.99s.

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DIFFERENTIAL DIAGNOSIS OF MEDIASTINAL ABNO- 
MALITY WITH RADIONUCLIDE ANGIOGRAPHY. 
Y.Nakajima, K.Asakura, Y.Ono, K.Tanohata, T.no- 
School of Medicine, Yokohama City University 
and Kanagawa-ken Seijinbyo Center. Yokohama.

Radionuclide angiography(RNAG) with red 
blood cell labeled by Tc-99m were performed 
in 60 patients with mediastinal masses on 
plain chest radiograph. Forty one cases wi- 
th vascular lesions and 19 cases with solid 
masses could be correctly diagnosed by RNAG . 
The vascular lesions included aneurysms, 
tortuosities, anomalies and others. In 
these cases contrast angiography could be 
avoided except for preoperative examination 
. The non-vascular masses could be imaged 
by RNAG except for 7 lower mediastinal ones 
, the images of which were obscured by RNAG 
pool in the heart and great vessels. The 
innominate artery and SVC can be clearly 
imaged by RNAG and it is most useful for 
right upper mediastinal masses. RNAG is very 
useful in differential diagnosis between 
vascular and solid mediastinal masses.

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EVALUATION OF LEFT VENTRICULAR FUNCTION 
BY RADIONUCLIDE ANGIOGRAPHY SYNCHRONIZ- 
ED WITH MECANOCARDIOGRAM. J.Yamaizki, 
Y.Kawamura, M.Pukumoto, S.Suzuki, S.Ida, and 
T.Norihira, 1st Internal Medicine of 
Toho University. Tokyo.

In this study, the performance of the l- 
eft ventricle was evaluated with the systo- 
lic time intervals which were calculated 
by RI angioangiography synchronized with 
ECG, PGQ, and carotid pulse. This study was 
performed in 129 subjects, 116 cases of he- 
art disease and 13 normal case volunteers. 
The beginning of the LVET was set on the 
first descent point of the RI count of the 
time activity curve and the time from the 
Q wave of ECG to this descent point was 
regarded as the PEP. The end point of 
the LVET was placed on the transitional point 
from negative to positive on the differential 
curve of this curve. Use of the ECG, 
PGQ and carotid pulse with which PEP and 
LVET are derived, as described by Weisler. 
The PEP is obtained indirectly by substra- 
ting LVET from Q-II interval. The LVET is 
measured from the beginning of the upstroke 
 to the dicrotic notch of the carotid 
pulse. The coefficient of correlation be- 
 tween the values of PEP and LVET calculated 
by RI technique and ECG in 13 normal cases 
were r=0.78 and r=0.86. The coefficient of 
correlation between the values of PEP and 
LVET calculated by these two methods in 
the almost subjects excluding valvular di- 
sese were very good.