the technique of Lassen et al. The clearance curves were estimated with the following parameters: (1) muscle blood flow at rest (F-rest), (2) muscle blood flow after ischemic contraction (F-max.), (3) time from release of cuff pressure to F-max. (T-i).

Results: (1) F-rest; There were no significant differences between healthy subjects and diabetics and/or the other diseases. The average value in healthy subjects was 11.3 ml./100g./min. (2) F-max.; The average in healthy subjects was 103 ml./100g./min, and that of diseased legs in aortitis syndrome was 25 ml./100g./min. In diabetics of young group, that was 123 ml./100g./min., and that in aged group was 79 ml./100g./min. The average was 90 ml./100g./min. in hypertensive patients. The low values of F-max. were observed in the miscellaneous diseases except a myotonia. (3) T-i.; The average was 0.14 min. in healthy subjects, 0.23 min. in young group of diabetics, 0.37 min. in aged group of that, 0.33 min. in hypertensives, and 0.40 min. in diseased legs of aortitis syndrome.

Comments: The values of F-rest were not so sensitive to discriminate between normal legs and legs with peripheral vascular disease. The intervals of T-i. were too short to give clearcut separation between normal and diseased legs. A more discriminating test may be obtained by F-max. It is interesting findings that F-max. of young group of diabetics was greater than healthy subjects. The exact reason why it was so has not yet been elucidated, and further studies into this region are necessary. At present, it is of interest to speculate that muscle tissue after ischemic contraction in young group of diabetics demands more blood flow than healthy subjects, and/or accumulates some substances to change the value for the tissue: blood partition coefficient; and in aged group of diabetics vascular changes masked these observations.

Panel Discussion I

Present Status of Radioisotopes in Clinics

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In Japan the use of radioisotopes is severely limited by law for the care of radiation hazzards. But some of the doctors who use radioisotopes are seemed to have less knowledge about radiation.

Other problem occurs in this field of medicine which is the radioisotope examination service in hospitals, because the doctors in the section are occupied their time mostly in routine works instead of their hope to have research program.

These problems are discussed during active members of radioisotope use in hospitals.

Former works of Dr. Yasukuchi mainly depend on radiation therapy and nuclear medicine, Dr. Kinoshita nuclear medicine, Dr. Torizuka endocrinology and nuclear medicine, Dr. Shida radiology in general and Dr. Kuramitsu nuclear medicine.