

gyrus was highest; its relative ^{65}Zn activity, expressed as the ratio of ^{65}Zn in each part/whole brain, amounted to 180% at the 720 hour interval. On the other hand, autoradiographical study showed that intracerebrally injected ^{65}Zn was accumulated in the marginal part of the stratum radiatum of h_4 , h_5 area which is contact with the stratum pyramidale of the hippocampus and the stratum multiforme of the dentate gyrus at 120 hours after injection. However, other parts did not show any distinct localization of ^{65}Zn . These observations indicate that ^{65}Zn has a charac-

teristic affinity for the hippocampus and dentate gyrus, where zinc has been shown to be displayed histochemically.

The relative ^{65}Zn activity in the hippocampus and dentate gyrus, examined at 240 hours after subcutaneous injection of ^{65}Zn , was changed under some conditions. Caudal resection of the pancreas decreased the relative ^{65}Zn activity, while unilateral adrenalectomy produced its marked increase with a decrease in ^{65}Zn activity in whole brain. Splenectomy, partial resection of the liver and castration had little effect on it.

Absorption and Excretion of Water-Soluble ^{131}I -NMG Ioth in Positive Contrast Ventriculography

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Water-soluble media, 60% methylglucamine iothalamate (NMG Ioth) was used in our study on positive contrast ventriculography.

A total of 14 cases, 7 males and 7 females, between 3 months and 55 years old were clinically performed. About 5 ml. of NMG Ioth was diluted with same volume of ventricular fluid by ventricular puncture, injected into the ventricle within 30 to 60 seconds, and then lateral and straight axial radiographs were taken. Accurate visualization of the ventricular system (lateral, third and fourth ventricles, aqueduct of Sylvius and cisterna magna) was achieved immediately after the injection. This ventriculography had an advantage to reveal the precise placement of mass lesions in the ventricle, diencephalon or cerebellopontine angle, and also disturbance of the cerebrospinal fluid circulation.

NMG Ioth containing 100 microcurie of radioactive iodine (^{131}I), was injected in order to see its absorption and excretion, and measured by a scintillation detector set on the temporal part. The remarkable decrease

of ^{131}I was immediately after the injection and the gradual decrease in 20 minutes. It usually took 6 to 45 minutes to decrease in half volume of ^{131}I in the skull. At the same time a scintillation detector was set near the heart to measure ^{131}I absorbed into the blood. It resulted a mound in 2 minutes and gradual upward in 10 minutes in a curve of absorption.

The best visualization of ventriculography was produced immediately after the injection and disappeared within 2 hours in most cases without disturbance of the cerebrospinal fluid circulation. The maximum blood concentration and urinary excretion were shown in 5 hours after the injection. While in cases with occlusion in the cerebrospinal fluid system, absorption of ^{131}I was delayed.

Positive contrast ventriculography with water-soluble media, NMG Ioth was concluded not only to be accurate and brief method with little complications, but also the media was rapidly absorbed and excreted.