the clinical data, such as EEG, spinal fluid, encephalography and so on, and the neurological and psychiatric pictures is reported in connection with applied treatment and its therapeutic effect.

55. Experimental Study of Brain Edema

S. AWAZU, T. TANAKA, U. ENDO, R. OGATA, M. EBARA, H. KOMATSU,

I. KATO, T. MITAKE, A. SASAKI AND T. YOSHIO

Department of Surgery, School of Medicine, Toho University

Water content brain, intracranial pressure, various fractions of brain tissue and pulmonary inculatory changes were examined by brain edema produced by brain of dog heads.

Furthermore, therapeutic effect of Neo urea. GABA Dextran, Chlorokromajen etc, brain edema were observed.

Urea was most effective and others were not as effective as urea.

56. Experimental Studies on Cerebral Swelling (II)

Shozo ISHII, Kazue OZAWA AND Yushi KONDO

The 1st Surgical Division, Kyoto University Medical School

To produce cerebral edema in experimental animals with high constancy, we devised a new method, i.e. cerebral compression by inflation of the epidurally inserted balloon. This was previously reported.

Recently, we further developed the technique. With the guide of EEG findings during the course of compression, it became possible to decide the end-point of balloon inflation very accurately and cerebral edema developed more constantly and with less mortality.

Edema brains thus produced were examined chiefly from a biochemical angle. Changes in nucleic acid, amino acid, P-content in each acid soluble, phospholipid, nucleic acid and phosphoprotein fraction, and urea content in the cerebral tissue were studied chronologically.

These experimental data were compared with clinical signs, and results of other routine examination, such as morphological or physical studies.