with the lapse of time, while the recovery could hardly be seen in cases in which Etopalin was injected.

Histological examination revealed that the necrosis of the nerve cells surrounding the lesion was well localized in cases of electrocautery and oil-wax injection, while it was widely developed in cases of Etopalin injection.

29. On Psychological test of Orbito-ventromedial undercutting in mental disorders (Report 2)

Yutaka MAKI, Tamio ISHIKAWA, Yasuto KIMURA, Eiji NOZAWA, Junzo KOIZUMI, Kei TAKAHASHI, Takashi INOUE, AND Katsuaki TAKASHI

Department of Neuropsychiatry, School of Medicine, Chiba University

In our previous report, orbito-ventromedial undercuttings were performed upon various psychosis and change of personality on patients was studied in their pre-operative and post-operative states.

In our present report, 8 cases of schizophrenic patients (only paranoid type), who did not respond to various other conservative measures, were subjected to this operative method and the following results were obtained.

1) Aggressive and impulsive tendency on the basis of delusion has decreased noticeably except in one case (Case II). Actual clinical behavior, such as cooperation to other patients has markedly improved.

2) None of the operated cases showed any decrease in the intelligence test.

3) No change was seen in their actual amount of work evaluated by Kraepelin test. However, 2 of them showed some change in its curve pattern, resembling considerable improvement.

4) On Rorchach test, increase in F, and decrease in FM as well as increases in form-level, were recognized with one exception (Case II). However, initial reaction time was delayed in these cases.

5) Excepting one case, the results of psychological tests were similar to the results obtained in the clinical evaluation, (Case II), and decrease in aggressive and impulsive tendency was noticeable.

30. The Application of LSD-25 in Phantomphenomenon and Thalamic Syndromes

S. KUROMURA, S. OKADA, M. HANADA AND I. MASUDA

Department of Neuropsychiatry, Kobe Medical College

We have reported cases of phantomlimbs which are applicable in the applica-

tion. The effect of LSD-25 in four cases of phantomlimbs (after amputations of limb) and in two thalamic syndromes is reported. By the application of LSD-25 phantomlimb, phantompain and hyperpathy in thalamic syndromes can be very changeable. The report consists of the description of subjective experience of patients and objective data of electromyogram of the muscle.

LSD-25 is known as the drug which causes experimental psychosis, but it may be suggested that this research contributes to the study of body-image of neurological origin. On the other hand, judging from the effect on phantompain and thalamic syndromes, LSD-25 is to be considered as a therapeutic drug in patients suffering from the above mentioned syndromes.

31. Hemodynamics of the Galen's Vein and General Anesthesia (Report II)

Rokuro TAKAYAMA, Kihachiro MASUDA, Kazuo UGAIN, Hideyuki HIRAI, Isao KATAYAMA AND Shigeo TOYA

Department of Surgery, Keio University School of Medicine

We made experimental studies on the influence of various anesthetic agents upon the circulation of the brain stem by means of a newly devised method of determination of hemodynamics of Galen's vein.

Agents used were ravonal, eunal, nitrous oxide, cyclopropane, ether, trilene and chloroform. In addition hypoxia and hypercapnia were subjected to the same study, for they are common complicating factors in the conduction of anesthesia. The results are as follows:

1. Ravonal, nitrous oxide, cyclopropane, ether, trilene and chloroform increase cerebral blood flows, and the degree of increase is always more marked in the brain stem than in the cortex.
2. Eunal causes a unique change in the cerebral blood flow.
3. Both hypoxia and hypercapnia cause increase of cerebral blood flow, and increase of blood flow in the brain stem is more marked than in the cortex.
4. Generally speaking, the blood supply in the brain stem tends to be adequately maintained under general anesthesia, while the blood flow in the brain stem shows a more stable attitude than in the cortex against fluctuation of systemic blood pressure during conduction of anesthesia.