In recent development of stereotaxic surgery, the subthalamus has been paid an attention in the anatomico-physiological standpoint. For the treatment of involuntary movements: Subthalamotomy (Andy), Campotomy (Spiegel) and Sub-VL-tomy (Narabayashi). Jinnai's Forel-H-tomy, on the other hand, was aimed for the treatment of epilepsy. In this report, an anatomical review of the Forel H field was presented in order to clarify our target under such a chaotic state of surgical denominations, and our clinical experiences of the H-tomy were presented.

1) A. Forel describes it in Arch. Psychiat. (7:393, 1877) that the H field is the mediodorsal layer of the Regio subthalamica and located just rostral to the nucleus which branches off into H¹ and H² in progress of the rostral direction. The centre of the H field in the Japanese adult brain is located at 2 mm caudal and 4 mm ventral to the midpoint of the CA-CP line, and 7-8 mm lateral to the mid-sagittal line, which is a little ventral and caudal to the point given by Schaltenbrand-Bailey.

2) Cryosurgical lesions were made bilaterally in 9 symptomatic and 8 idiopathic epilepsies, and unilaterally in 2 symptomatic epilepsies. The lesion is 6 mm in diameter and smaller than the H field. Seizures were completely abolished in all of the 2 cases of symptomatic and 3 cases of idiopathic epilepsies in which the H fields were bilaterally properly destroyed, and one of the 3 cases in which the H fields were bilaterally properly destroyed, and one of the 3 cases in which the H fields were properly destroyed in one side and partially in another side. While the target was missed either in one side or both sides, the result was not satisfactory. It was stressed that irrespective of idiopathic or symptomatic epilepsies, the lesion should be made at the target in both sides. Seizure discharges become less in frequency and shorter in duration after surgery, but there was no complete disappearance of them in case of complete abolishment of clinical seizure. No complications were found postoperatively at the destruction of the H field per se.

36. Surgical Treatment and ACTH-Z Therapy on Infantile Spasm

Yutaka HORI, Shozaburo UTSUMI, Shozo YADOSHI, Yoshiaki UEDA,
Katsuya SHIOTA, Shigeki MINAMI, Hideo SEKIMOTO
and Takuko YANASE

The 2nd Department of Surgery, Nara Medical College

Since several years, we have emphasized that in cerebral palsied patients there are a number of patients complicated with craniostenotic state and have termed as "secondary craniostenosis" to differ from congenital craniostenosis. In fact, it

quarter of the cerebral palsied patients were in the craniostenotic state in which some manifested attacks of infantile spasms. The surgical procedure, craniotomy, were performed on the craniostenotic cerebral palsied patients and resulted in various good effects on motoric and psychic retardation. The most attractive event of the effects was complete disappearance of attacks of infantile spasms.

Of surgically treated craniostenotic patients, 36 infants complained of infantile spasms. Eleven cases of these 36 patients were free from their attacks completely immediately after the surgery. And in other 12 cases their attacks were fairly suppressed but not completely. From these clinical observations, the patients complained of infantile spasms under craniostenotic state are preferable to be treated surgically.

While, the each attack of 12 patients were investigated by means of simultaneous recordings of EEG, EMG and Movies. Based on the investigations, infantile spasm was classified in three types as follows. In type A, the single attack lasted within one second and could be evoked by sound and light stimulation and presented spikes on the electroencephalogram. Type B had attacks lasting 1–10 seconds and the attacks were difficult to be evoked and encephalographically showed no spike. Type C had long lasting attacks, more than 10 seconds, and was able to be evoked by Bemegride. The attacks of each type responded differently to medication. Type A and C responded to anticonvulsants moderately but showed no effects by ACTH-Z. On the other hand, the attacks of type B were controlled by ACTH-Z therapy fairly well.

37. Convulsion evoked by N-Methyl Aspartic Acid

Jiro NAGAOKA, Nobumoto SAITO, Toshio HIRATA, Hisao ARAI,
Hiroshi SATO, Jun YONEYAMA and Kei MIYAZAWA

Dept. of Physiology, Kanagawa Dental College

38. Clinical and Neurophysiological Investigation of the Preventive Effect to Convulsive Seizure by Means of Administration of GABA (γ -aminobutylic acid) Derivatives to CSF Cavity

Keizo MATSUMOTO, Takashi OHMOTO, Shinji TAKEUCHI, Masaho MURAKAMI, Akira MATSUMOTO and Masahiro TANIGAWA

Department of Neurological Surgery, Okayama University Medical School