6. A Case of Juvenile Parkinsonism Combined with Epileptic Abnormality

Shuzo Okumura, Takashi Ohmoto and Shinpei Nanba

Department of Neurological Surgery, Okayama University Medical School

The patient was 28 years old female, has had uneventful life 6 years prior, when she first noticed a slight tremor on the right foot on occasion. Family history was negative. She had muscle rigidity of the both legs for the last 18 months, tremor and rigidity of the four extremities and difficulty of walking for the last 3 months. The facial expression and body posture were typical for parkinsonism, but no mental disturbance and no autonomic sign was observed. The patient was diagnosed as a juvenile parkinsonism. The clinical and laboratory examination were negative except EEG which showed bilateral synchronous atypical spike and wave complex burst. The patient has had an accident of falling down, the cause of which was unable to decide either epileptic or parkinsonian disturbance, on a stairs three years prior.

The right thalamectomy was intended for the treatment of the symptoms for the left side. During the procedure a multiple electrode was introduced to the thalamus and action potential was recorded from thalamus as well as cortex by scalp lead. Atypical spike and wave complex burst was recorded, spike component was clear in thalamic record but not clear in scalp record, slow component was appeared several hundred milli-second previously in thalamic record comparing to scalp record.
Records by scalp and thalamic leads.

Channel 1. bipolar scalp record between right parietal and occipital.
Channel 2. thalamic record by bipolar electrodes distance was 15 mm.
Channel 3 to 7. frequency spectrum of channel 2.

Thalamic lesion was made by high frequency electric coagulation and the parkinsonian symptom was arrested on the left side without side effect. The patient experienced no epileptic seizure for 6 months until present time and no marked change was observed on 3 months follow up EEG.

7. Forel-H Field Lesion Effect on Subcorticogenic and Limbicogenic Seizures
   —experimental study—

Jiro Mukawa, Yoshikazu Iwata and Kiyofumi Kobayashi

Dept. of Neurosurgery, Osaka University Medical School

Utilizing acute and chronic sets of unanaesthetized cats, an attempt was done to make analyses of the bilateral Forel-H field lesion effect on subcorticogenic and limbicogenic seizures in the standpoint of seizure threshold variation, and furthermore of the seizure increment mechanism of the H-field lesion in correlation with the activation systems such as hypothalamus and brainstem reticular formation.

1. Acute experiment for the H-field lesion effect on limbic seizures: The after-discharge threshold tended to slightly increase by the lesion at electrical