Bifrontal fast unduration due to the ocular movement has been seen often in some patients, complaining the finger tremor, for instance. In such the patients the marked nystagmus was picked up from the frontal leads as the characteristic artefact.

Slow and high amplitude unduration lasting several seconds or so has also been recorded usually in showing the frontal predominancy. High temperature and high age have been the predisposing factor in its appearance. This slow curves have, therefore, been related to the sweating of the face to certain degrees. They have had two interesting property, i.e. constancy and asymmetry. Only one case out of 16 who showed the remarkable asymmetry had the predominancy contralateral to the side of distress. This suggests the high usefulness of the ultrared ray thermography and also of the GSR in the lesion of the lower brain such as the posttraumatic cervical syndrom.

Sinuous arrhythmia has also been observed in about half the cases of the p.c.s. examined by our procedure. Paroxysmal tachycardia has, however, has made the condition complicated more or less. Both neuronal and humoral mechanisms should be related.

K-26. "Whiplash Injury"—Interrelation—ship between Subjective Complaints and Objective Findings

Gaio OKOCHI, Terushi ITO, Mitsuyuki KOIWA, Masaharu SATO,
Takeshi KASHIWABA, Renzo YADA and Mitsuo TSURU

Dept. of Neurosurgery, Hokkaido University

L. Head Injury

l-1. Mechanism and Dynamics of Closed Head Injuries

Keiji SANO, Norio NAKAMURA, Kimiyoshi HIRAKAWA, Hideaki MASUZAWA,
Keizo HASHIZUME, Katsuoki AKASHI, Isamu SAITO, Hiroaki SEKINO
and Tokuro FUCHINOUE

Department of Neurosurgery, Faculty of Medicine, University of Tokyo

The authors reported in the previous paper that tolerance of a monkey to impact force on the head was a little over 6 meter in height, around 40 km/hr. in velocity and about 180 g in peak acceleration of the head when dropped to the hard packed ground.

However, it is sure that linear as well as angular acceleration take place in the brain simultaneously at the moment of impact, which affect and destruct