got the same degree as before fixation.

From above mentioned results it might be presumed that the brain activity of the rabbits during restrained condition with stereotaxic instrument is different from that of unrestrained condition.

## *B9.* Stereotactic Operation for Involuntary Movements and other Neurological Diseases.

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Since 1958, stereotactic operations for involuntary movements and other neurological diseases have been carried out 42 times on 36 cases.

As for involuntary movements, the target point is decided as follows after analysing them by means of EMG with stretch reflex, evoked EMG (M-H wave), chlorpromazine or P.Z.C. (central gamma blocking) and procaine (peripheral gamma blocking) method of EMG.

Stereotactic approaches mainly to the internal pallidum, v.o.a. in cases of hypertonic (rigor) type and the oral ventral nucleus (v.o.p., v.o.a.) of thalamus in cases of hyperkinetic type are herewith introduced.

In cases of intractable pain, an approach to the v.c.p.c. of thalamus was effective.

In 5 cases of nystagmus, an approach to the superior colliculus (stratum lemnisci) revealed satisfactory results with permanent relief, which are especially noted in cases of unilateral horizontal nystagmus.

In a case of tecto-vestibular ataxia, an approach to the superior colliculus (stratum profundum) presented good result.

The authors performed usually electrocoagulations after having tested the ideal target point by means of electrostimulation.

Electromyographical analysis, determination of the target point, operative procedures and indications etc. will be discussed in this paper.

## B10. Experiences with McCaul's Stereotactic Apparatus and Injection of Alcohol and Caolin.

## S. ΤΑΚΑΥΑΜΑ

## The 1st Nation. Hospital

We are performing chemothalamotomy with McCaul's stereotactic apparatus and injection of alcohol and caolin on the patients suffered from Parkinson's

- 156 -

disease.

The McCaul's stereotactic apparatus is not a complicated apparatus, but this one leads the needle to the right position for the thalamotomy by only a few simple manuals with X-ray.

Alcohol mixed with caolin does not make extensive diffusion, nor does not give damages to the brain along the needle like as alcohol injection. We showed these things with our experiences.