S-II-4. Stereotaxic VL Thalamotomy for Parkinsonism

Operative Indication Seen from Its Long Term Results

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From the year 1958 to April, 1971, we experienced 112 cases of parkinsonism. The examination of the present state of these cases by means of enquete was replied to in 98 cases. The time elapsed after operation ranged from 6 months to 11 years.

From this examination the following results were obtained:

1) The long term result of surgery varied very much, depending upon whether the operation (VL thalamotomy) was made with accuracy or not. In cases of inaccurate operation the preoperative conditions usually reappeared during about 6 months after operation.

2) On the other hand, in cases in which an accurate operation had been made, the effect of VL- thalamotomy was maintained very well for a long time. Especially in cases of hemiparkinsonism, many of patients have led a normal social life without being in need of other medications at all.

3) Stereotaxic VL thalamotomy proved to be effective for tremor and rigidity among symptoms of parkinsonism, but not for pseudobulbar signs, such as well as for mental deterioration and bradykinesia. From this, it is probably proper that we should generally consider the operative indication on the basis of the proportional relation between tremor or rigidity and other signs, such as bradykinesia and the like.

4) The age of patients at the time of operation and the number of years of affection till that time seems to have no direct relation with the late result of operation. Generally speaking, when a patient is young or in cases showing less mental deterioration or bradykinesia the late result of operation is favourable.

S-II-5. Results of Bilateral Thalamotomy

—In 23 Preselected Cases of Parkinsonism—

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It has been considered from our clinical experience that indication and time of the second surgery are most influencing factors to the results of bilateral thalamotomy for bilateral Parkinsonism. In our service, therefore, prerequisites for a second intervention for those patients were settled as following since 1964. 1) The patient has good or excellent results immediately after the first thalamotomy without any side-effect. 2) The improvement should be lasted over 12 months or more in the postoperative course after the first surgery. 3) Satisfactory size of lesion by the first operation should be expected in his thalamus without any sign of capsular involvement. 4) Disability of the motor function is now advanced by progress of symptoms of non-operated side a year or more after the first surgery. 5) Absence of medical contraindications should be established in each case. And 23 cases of Parkinsonian patients were operated bilaterally. Follow-up period were ranged from 9 months to 5 years and 6 months (average: 2 years and 5 months). As to postoperative end-results, there were 8 patients who were able to work again with full capacity as a radio operator, a tailor, a labour, a officials, a cook, a business man, a clerk and a house wife. The other 15 patients were also improved to self-sufficient stage in their activity of daily living, although there were 3 cases who got lost contact with us a year after the 2nd surgery. Slight but particular type of impairment of speech were seen in 15 cases and minor psychomotor changes in 4 patients as the complication after the 2nd surgery.