the afferent fibers to the posterior portion of the centrum medianum and other intralaminar nuclei, if one wishes to obtain an excellent pain relief with a smallest lesion.

20. The Operative Indication of the CEM-Thalamotomy for the Relief of Intractable Pain

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We devised a stereotaxic operation, CEM-Thalamotomy to make a circumscribed lesion involving the posteroventral part of the CEM (nucleus centrum medianum), for a relief of intractable pain.

The CEM-Thalamotomy were performed on 53 cases complaining of intractable pain which included 8 cases operated by Tsubokawa in Atlanta (VAH). According to analysis on the clinical course of all cases which were performed the CEM-Thalamotomy, the operative indication were as follows:

1) In the cases of visceral pain, bilateral CEM-Thalamotomy might produce sufficient effect on the pain, but in some case, somatic pain that is located on one side of body is relieved by the unilateral lesion.

2) The CEM-Thalamotomy can be used even on the cases with poor risk. However, there is same limitation as the stereotaxic VL-tomy as there is more frequently brain metastasis, ventricular dilatation and venous stasis of the neck in terminal cancer patient.

3) According to our follow-up results, striking effect on pain caused by benign disease were observed more than three years and same effects on pain caused by malignant disease were observed for one to four months until death by original disease.

4) There is absolute contraindicative cases who have drug intoxication or psychiatric disorder, because the effect of the CEM-Thalamotomy and side effect are not correctly detected.