

A-43. Clinical and Endocrinological Evaluations of Acromegaly; Comparison with Cryogenic and Microsurgical Treatments

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The microsurgical and stereotaxic cryogenic transsphenoidal approach to the hypophysis of acromegalic patients have been proved to be more effective than other methods.

Nine cases were available for clinical and endocrinological evaluation before and after the cryogenic surgery (Rand). The longest period of follow-up is 6 years. Preoperative Human Growth Hormone (HGH) values varied from 20.0 to 288.0 ng/ml. Preoperative values of other pituitary functions were almost normal. Clinical remissions were observed in 7 out of 9 cases after the operation. Postoperative fall of HGH levels to around 10 ng/ml was observed in 7 cases and among these 7, HGH levels reached around 5 ng/ml in 3 instances. Other pituitary functions preserved normally in 5 cases out of 7 effective cases and reduced slightly in 2 cases.

Nine cases were operated by Hirsch's method (transnasal transseptal) and 7 cases by Hardy's method (oronasal rhinoseptal). The longest period of follow-up is 4 years. Preoperative HGH levels varied from 12.0 to 180.0 ng/ml. Preoperative values of other pituitary functions revealed to be almost normal. All cases except one (Hirsch's method) showed clinical remissions postoperatively. Postoperative HGH levels declined to 10 ng/ml or less in 8 cases soon after the operation, and among them, 4 cases declined to 5 ng/ml or less. Postoperative pituitary functions preserved normally in 6 instances out of 8 effective cases.

When comparing the results of these 2 methods for acromegaly, clinical remissions were more common in microsurgery cases. If

the normal values of HGH is considered to be less than 10 ng/ml, the results of 7 cases in cryosurgery and 8 cases of microsurgery method are satisfactory. If the normal values of HGH should be less than 5 ng/ml, 3 cases are effective in cryosurgery and 4 cases are effective in microsurgical treatment. The time which the HGH levels needed to coming down to normal ranges was also different according to two methods; that is, the fall of HGH levels in cryosurgery was gradual and reaching the upper limit of normal values within 1 or 2 weeks after the operation and about one year was the longest time unit. On the contrary, the HGH levels in micro-surgically treated cases reached normal values much quicker after the operation, usually within several days and 2 weeks was the longest. The reduction of the pituitary function was less common in microsurgery cases than in cryosurgery cases. The incidence of postoperative diabetes insipidus, although all of them were transient, was more common in cryosurgery (4 cases out of 9) than in microsurgery cases (2 cases out of 9). One patient was lost because of bacterial meningitis in microsurgery operation. One case recurred 3 or 4 years after the effective cryogenic surgery.

In conclusion, the clinical and endocrinological results were more excellent in microsurgical treatment than in cryosurgery, but better results might be obtained by achieving complete selective removal of intrapituitary adenoma as much as possible to preserve normal pituitary functions in more number of cases.

A-44. Pre- and Post-Operative Hypothalamo-Pituitary Function of Sellar and Suprasellar Tumor Cases

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Forty one cases of sellar and suprasellar tumors (13 cranipoharyngiomas, 18 pituitary