sure perfusion elevated to 150-200 mm Hg and continued throughout the period of isolated brain perfusion. This hypertensive state is thought to be neurogenic through baroreceptor of the carotid sinus.

It is also observed electroencephalographically that hyperthermic brain perfusion at the temperature of 41°C for 30 min. should be the maximal limit.

26. Chemotherapy of Brain Tumor by Localized Cerebral Perfusion (IV)

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Chemotherapy of brain tumor by localized cerebral perfusion has been heretofore performed on 22 cases. In our series mean period from the onset of disease to the hospitalization was 5 months. The first group, 5 cases, received 100 mg. of Thio-TEPA during 30-40 min. of perfusion time. In this group side effects due to leakage of antitumor substance were severe and 3 cases died of the severest side effects. Mean survival period after perfusion therapy was 3 months in this group. In the second group, 7 cases, a half dose of Thio-TEPA or cytoxan was used in order to avoid the side effects. Mean survival period was 4.4 months. The third group, 10 cases, received 100 mg. of Thio-TEPA during 10 min. perfusion time. In this group side effects due to leakage factor were less severe than those of the first group. Eight cases of the third group are still alive. The longest survival period is 20 months after perfusion therapy and nearly 3 years after operation. Mean survival period was 10.4 months.

According to the results mentioned above, the most excellent clinical results could be obtained by short time perfusion of high concentration of the antitumor substances.

When each case is followed-up in detail, however, permanent effects could be hardly obtained by single perfusion therapy, even though improvement of general and neurological symptoms was temporarily observed and prolongation of the survival period was expected. Radiation therapy of brain tumor showed the similar insufficient effects as perfusion therapy. By means of the tissue culture screening test, the most effective antitumor substance can be used clinically, but radical therapeutic effect cannot be obtained by single perfusion therapy during short period.
Therefore perfusion therapy, other chemotherapeutic methods or radiotherapy should be repeatedly performed after postoperative single perfusion therapy, in order to obtain better therapeutic results against malignant brain tumors in which radical operation was unsuccessful.

27. Follow-up Studies on Craniostenosis after Craniectomy

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Follow up data with six years for 15 patients of craniostenosis treated by craniectomy of our method in order to help on generally regrowth of brain were reported in details.

In these patients, intracranial hypertension was decreased to normal level in all patients, intelligence and epilepsy were improved in 80%, circumference of the skull, visual power and hearing in 50%. But 7 patients of microcephaly did not show any improvement.

28. A Case of Encephalocele into the Nose in a Male Aged 50

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A rare case of encephalocele in a male aged 50, that protruded into the nose forming a egg-sized tumor at the radix of the nose has been reported. This has been successfully operated by means of iliac bone graft with reconstruction of the deformed nose.