77. Chemotherapy of Brain Tumor by Selective Cerebral Perfusion

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A large amount of antitumor substance was locally used against brain tumor cases which are hardly cured radically by operation, by means of a selective cerebral perfusion method. Two cases of glioblastoma and a case of astrocytoma locating in the parietal or temporal lobe were treated by this method.

Selective hypothermic cerebral perfusion or cerebral perfusion by means of a bubble type oxygenator 100 mg of Thio-TEPA was perfused for 30-40 min. through the common carotid artery, brain and internal juglar vein on the affected side. During perfusion EEG, EKG, rectal and brain temperature, oxygen contents of perfused blood etc. were examined.

All cases of the authors' series have been postoperatively uneventful. There was no side effect worthy mentioning except leucopenia, which showed minimum W.B.C. on the 10th to 14th postoperative day. About 1 to 3 months after the perfusion, clinical symptoms improved more or less. Furthermore, tumor shadow disappeared arteriographically in one case and bulging of the craniectomized area completely disappeared in another case.

Limited clinical experience with these patients has demonstrated the fact that chemotherapy of brain tumor by selective cerebral perfusion is promising, especially in cases which are hardly cured surgically.

78. Clinico-pathological Consideration on Atypical Acoustic Neurinoma

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It is a well known fact that most of neurinomas in cerebellarpontine angle arise from acoustic nerve sheath and are clinically characterized by disturbance of angle cranial nerves. In some instances, however, angle neurinoma (acoustic neurinoma) manifests complicated clinical pictures instead of its characteristic symptoms that are called “atypical acoustic neurinoma.” The author studied the processes of development of “atypical” clinical pictures in three such cases from a clinical and pathological point of view, and the following findings were obtained. (1) In all of three cases, the majority of neoplasm invaded the basis of the posterior and middle cranial fossa, expanding extracranially, and only small
masses occupied the posterior fossa. (2) The stem of the internal carotid artery was involved by the lesion, therefore, it was possible to demonstrate deviation and obliteration of the artery by carotid angiography. Carotid obliteration might be one of the possible complications that interfere the clinical picture of atypical acoustic neurinoma. Complete removal of masses in the posterior fossa does not result, therefore, in the improvement of clinical manifestations.

79. Clinicopathological Study on Cerebral Hemorrhage in Metastatic Foci of Lung Cancer

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113 cases of lung cancer were autopsied at the Pathological Department of Keio University School of Medicine from 1947 to 1958. 30 cases of them had brain metastasis and macroscopic cerebral hemorrhage complicated in about 50%.

Around the metastatic foci with hemorrhage, vascular lesions especially angionecrosis were observed. On the other hand, angionecrosis was not found in foci without hemorrhage. By these facts, the relation between cerebral hemorrhage and vascular change may be partially explained, namely, angionecrosis is considered here to be only a secondary change.

We studied also the important problems related to hemorrhage such as the effect of blood pressure, anemia, medication, arteriosclerosis and histopathological findings of metastatic tumor.

80. Pre- and Post Operative Adrenocortical Function of Brain Tumor Patients

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The adrenocortical function of patients with brain tumor in our clinic was examined by using ACTH-Z-Test. It was found that some cases of tumors of hypophyseal region showed adrenocortical insufficiency and a few cases of tumors in cerebral hemisphere or posterior cranial fossa showed also insufficiency or abnormal responses.

We have experienced some shock cases in this insufficient number of patients,