## A-51. The study of Intra-and Paratumoral Hemorrhage

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When intra and paratumoral hemorrhage of intracranial tumors occur, patient shall show marked deterioration in conciousness and neurological evidences suddenly.

The authors experienced 25 cases of intracranial tumors associated with intra and paratumoral hemorrhage in the past 20 years. The frequency of occurrence of intra and paratumoral hemorrhage were 6.6% of all intracranial tumors. The nature of tumors are astrocytomas and hemangiomas but no relationship between hemorrhage and histrogical malignancy is noted. Of these 25 cases, the site of hemorrhage in 12 cases were in tumor tissue, in 9 cases were adjacent cerebral tissue or the space between tumor and adjacent tissue and in 4 cases were in both of tumor tissue and adjacent tissue. The sites of tumors were as follow, 13 cases in the cerebral hemisphere and 5 cases in the cerebellar hemisphere. These cerebral and cerebellar tumors were 70% of all cases of intra and paratumoral hemorrhage. The time when hemorrhage occured was recognizable in 19 cases clinically. Out of 19 cases, 8 cases showed meningeal irritation sign, 8 cases showed lowering of conciousness level and meningeal irritation sign and 3 cases showed lowering of conciousness level and cerebral focal signs. Intra and paratumoral hemorrhage made the initial symptoms in 9 cases and 7 of these were paratumoral hemorrhage. On the other hand, hemorrhage from tumor occured in the course as intracranial tumor. The neurological symptom in 13 cases appeared after hemorrhage and other 6 cases showed increase of number of symptoms or severities of neurological evidences after hemorrhage.

## A-52. Our Experience on Cerebellar Hemangioblastoma

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Recently the reports on the cerebellar hemangioblastoma decreased in number since its clinical observations were already made in detail. Therefore we stated clinical findings of the tumor from the experience of cases encountered in this clinic. We also presented interesting cases and studied on the problem of its diagnosis and treatment.

In our series of 292 brain tumors, 10 cases of cerebellar hemangioblastoma were