1) The recovery of hemiplegia was almost complete in cases with hematoma localized in the putamen (external capsule) by both surgical evacuation and medical treatment.

2) The recovery of hemiplegia could not be expected in cases with hematoma extended into lateral ventricle destructing the internal capsule. The major aim of surgery is life saving in these cases.

3) The prognosis for hemiplegia by the surgical evacuation was significantly better than that of conservative management in cases with the hematoma spread into a part of the posterior limb of internal capsule. Surgery is advisable for this type of hemorrhage.

4) The severity and prognosis of hemiplegia in putaminal hemorrhage was primarily determined by the presence or absence and the degree of the destruction of the posterior limb of internal capsule. This can be estimated to evaluate the configuration and displacement of the lateral lenticulostriate artery. This fact was clarified comparing the angiography with the autopsy finding.

52. Neurological Analysis on Surgical Indication of Hypertensive Intracerebral Hemorrhage and its Results

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We have experienced 104 operated cases of hypertensive intracerebral hemorrhage for the past 12 years. Surgical indication was decided according to the location of the hematoma, which was referred to the Scheinker's classification. An investigation on the location of the hematoma and the operative results revealed that in the lateral type the neurological signs improved and more than one month's survival duration was found in 54 out of the 68 cases (79.4%), while only 4 out of the 35 cases (11.4 %) of the combined type survived with a poor improvement of neurological signs. When these results of ours were put into various neurological items in the medical treatment introduced in the reports by Okinaka, et al., the surgical treatment was superior in the rate of the cases survived more than one month.

All cases grouped into five after their operative results had been examined on the chart of our neurological items. In this paper we have reported the surgical
indication by the bed side thus obtained.

Group I was of those that had slight attack and with clear consciousness or somnolence, and whose vital signs were almost normal. Hematoma volume which was less than 80 cc and the pre-operative duration had no relation with the survival rate. Eight out of the 7 cases (87.5%) in this group were saved.

Group II was of those in stupor and with obvious neurological deficiency. Twenty-one of the 33 cases (63.6%) in this group were saved. Hematoma volume which was between 81 to 150 cc had no relation with the survival rate, but it was higher in those operated within a week of attack.

Group III consists of (A) and (B). (A) included cases with semicoma and normal or progressive vital signs and with oculomotor nerve signs. Out of its 38 cases 26 (68.4%) were saved. While those showing uncertain vital signs and obvious oculomotor nerve signs were included in (B), on which 10 cases the survival rate was zero.

Group IV was also divided into (A); ten cases with coma, normal or progressive vital signs and oculomotor nerve signs, showing 20% survival rate with 2 survivals, and (B); those with coma, oculomotor signs and poor vital signs resulting no survivals.

Group V was of those showing cerebral herniation such as decroticate or decerebrate state. Two out of the 4 cases were saved.

As mentioned above, the surgical indication of hypertensive intracerebral hemorrhage depended greatly on the patient's conscious disturbance: It could be said that a patient in serous condition can be saved if his vital signs were normal. This suggests an importance of the surgical treatment in the treatment of this disease.

53. Successful Removal of Pontine-Medullary Haematoma

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We have reported a rare case of successful removal of a pontine-medullary hematoma. This 36-year-old male was re-admitted to our clinic on May 26 to August 31, 1970, because of a nausea, repeated vomiting, headache, sensory impairment of the right side of the face without facial weakness and right-sided cerebellar disturbance of acute onset and six months' duration.

He was slight lethargic but excellent general orientation and coordination. Examination demonstrated dysarthria, decreased hearing, positive Horner's sign, abducens palsy on his right side. Bilateral horizontal gaze nystagmus was present. Total trigeminal nerve impairment including motor branch was demonstrated.