39. Postoperative Management by Prolonged Hypothermia in Brain Operation

—The third report—

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It is generally recognized that hypothermia is effective in preventing cerebral edema or swelling in neurosurgery.

Hypotension under hypothermia has been suggested to be one of the causative factors lowering the intracranial pressure.

Since 1961, 131 cases of intracranial tumors, aneurysms and severe head injuries have been operated on under moderate hypothermia by surface cooling (28° c to 30° c).

During the postoperative prolonged hypothermia by surface cooling, the intracranial pressure in ventricular drainage increased gradually with the increase of body temperature but not of blood pressure.

In the group under hypothermia, the time to arrive at the highest value of cerebrospinal fluid pressure was more prolonged than in the group under normothermia.

It is suggested in this study that hypothermia represses the increase of cerebrospinal fluid pressure after operation.

We consider that the prolonged postoperative hypothermia is effective in severe neurosurgical cases.