more frequently than we expected and cerebral cortical damages accompanied with dural lesions existed in 29 cases. Comparing with these changes and neurological signs, for example, convulsion or fainting attack, hemiplegia, palsy of cranial nerves, aphasia, psychiatric disturbance and etc., it was showed that these changes had made an important role in the appearance of the neurological symptoms.

Results of follow-up in these patients have shown that most of them did not complain neurological symptoms postoperatively, except for 9 cases with convulsion (6), hemiplegia (2), disturbance of speech (2) and poor vision (1). In the children under 10 years of age, a convulsive seizure was revealed in only one patient and remained hemiplegia in another one after the discharge but the others were free from complaints.

Discussion to 160.

Our Opinion on the Cranioplasty for Depressed Fracture

Yuji MIYAZAKI and Hidehiko TAKAMATSU

Dept. of Neurosurgery, Sapporo Medical College & Hospital

Cranioplasty for the depressed fracture of the skull was performed on 180 cases in past 13 years in our clinic.

Indication for operation in our clinic: those who have neurological symptoms due to depressed fracture, whose grade of depression is more than the thickness of the skull, those who have deformity of the inner table by depressed fracture and those in motor and sensory area.

The operation method divided into 4 types. 1) Simple Elevation Method was performed on 35 cases and this method applicated in cases who have not deformity of inner table. 2) Turn-over Method (Hashiba and Miyazaki) was performed on 45 cases and this method is replacement of bone flap by turn over after craniotomy in depressed area. 3) Replacement Method was performed on 44 cases. 4) Cranioplasty by Homogenous and Heterogenous Bone was performed on 56 cases who have no indication for above mentioned methods because of many small fragments. The materials transplanted in these cases are autogenous iliac grafts, homogenous iliac grafts and Kiel-Bone Grafts.

At present, many kinds of supplemental materials like alloplastic material are using widespread in other clinics.

According to our opinion as ossification in the area of cranioplasty is ideal, the homogenous and heterogenous bony materials that have no tissue reaction have to be used.