astomosis by ordinary silk sutures failed except in one case in which the outflow of the fluid was noticed at the exploration on the fifth postoperative day. By reflecting the dissected pelvis around a polyethylene ring, a satisfactory result was obtained, preserving a patent opening into the abdominal cavity in half of the cases. However, obstruction was noted in the ventricular portion in all these instances.

These discouraging results were probably in large part due to technical difficulties involved in working with experimental animals. Small ventricular cavities and limited cerebrospinal fluid production seemed to be the important factors to overcome this type of experimental investigation.

18. Clinical Studies on the Ventriculoauriculostomy for the Treatment of Hydrocephalus

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Though there have been numerous methods for the treatment of hydrocephalus, the authors reported new experiences. They treated surgically, several patients of hydrocephalus and secondary one following inoperable brain tumor, performing the operation of ventriculo-auriculostomy using Pudenz-Heyer valve, and relatively good results were obtained.

They, furthermore, discussed this technic, comparing them with other treatments of this disease.

19. Surgical Treatment for Hydrocephalus

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Surgical treatments were performed on 28 cases of hydrocephalus (not due to tumors), i.e. 5 of choroidal plexectomy, 7 of salpingothecal anastomosis, 5 of subcutaneous ventriculo-mastoidostomy, 1 of ventriculo-auriculostomy, 7 of third ventriculostomy, 3 of Torkildsen’s ventriculo-cisternostomy and 4 of removal of membranous obstruction, including 4 cases who underwent two kinds of operations and 3 cases of death.
Plexectomy could not always bring satisfactory results, and mastoidostomy was accompanied by postoperative meningitis in 4 out of 5. Salpingostomy has brought long-lasting good results in 5 out of 7 and is considered to be an ideal method. Some cases, who were diagnosed as non-communicating hydrocephalus by indigo-carmine test and underwent third ventriculostomy or Torkildsen's operation, did not show any improvement, probably due to depressed absorptive mechanism.

Advantages and disadvantages of these surgical procedures and their indications are compared and discussed.

20. Experiences with the Bouginage Method of Aqueductal Stenosis

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As the treatment of aqueductal stenosis or atresia, the bouginage method reported by DANDY has not recently been undertaken because of its danger and its transitional effect. Since this method is the simplest procedure, we did this operation successfully in 3 cases of aqueductal stenosis in which a very thin membranous occlusion was found or the length of the stenosis was considered very short. In all 3 cases, 2 boys (13 yrs. and 16 yrs.) and a girl (14 yrs.), the diagnosis was confirmed by lipiodol ventriculography. By suboccipital craniectomy, the tumor was not found and Nélaton’s catheter (No. 3-No. 6) was inserted into the 4th ventricle through the foramen of Magendie. Resistance was noted at the point of 3 to 4 cm. By pushing the catheter a little stronger, the resistance was diminished and fluid floating with droplets of lipiodol was obtained. Postoperative courses were uneventful and C.S.F.-pressure became normal. Only in the second case, stagnation of lipiodol was found at the site of stenosis 1 month later. Then the Torkildsen’s operation was done because of stenosis due to the ball-valve mechanism produced by a thin membrane in the aqueduct. One year and 11 months, 10 months and 4 months were followed up respectively by June 1960, and all are well.

Operative results of another 15 cases of aqueductal stenosis and 25 cases of midbrain tumors treated by various methods in our clinics were discussed.