BILATERAL TORKILDSEN PROCEDURE
ITS APPLICATION IN INSTANCES OF OCCLUSION OF BOTH FORAMINA OF MONRO*

HOMER S. SWANSON, M.D., AND GEORGE PERRET, M.D.†
Department of Surgery, Emory University School of Medicine, Atlanta, Georgia
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The operative procedure ventriculocisternostomy, first proposed by Torkildsen,² has become an accepted and effective method in relieving a non-communicating hydrocephalus. In a previous communication, presented before this group in 1947, our¹ accumulated experiences were set forth in utilizing this procedure. Since this report the operation has been performed in an additional 16 cases. It is the purpose of this discussion to report 3 instances in which a double drainage of the lateral ventricles seemed preferable to a single ventriculocisternal communication. In addition, attention is focused on the possible utilization of this procedure in dealing with certain craniopharyngiomas and other massive growths that completely usurp or distort the mid-supratentorial ventricle.

CASE REPORTS

Case 1. A 29-year-old white female, admitted Oct. 18, 1948, presented a 2-year history of personality changes, headache, amenorrhea, weight gain and progressive visual impairment. She also had symptoms of diabetes insipidus accompanied by urinary indifference. Examination revealed obesity, an obvious impairment of intellectual function and bilateral primary optic atrophy with visual acuity reduced to light perception only. Ventriculography demonstrated elevation and incomplete filling of the 3rd ventricle (Fig. 1). Bifrontal craniotomy was performed and a subtotal removal of an almost completely cystic adamantinoma was accomplished with improvement in the patient's visual acuity and fields and relief of headaches. Improvement continued for 2 months and then marked evidences of an obstructive hydrocephalus developed, necessitating her readmission. Ventricular estimation and drainage revealed a bilateral non-communicating hydrocephalus of the lateral ventricles. Bilateral ventriculocisternostomy was performed and the patient was discharged markedly improved. The postoperative

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† Present address: Iowa State University Hospital, Iowa City, Iowa.
course was temporarily one of improvement but ultimately terminated fatally during the 4th month. Although the cause of death was unknown one would infer from historical data available that it was due to midbrain compression.

Comment. The ventriculographic studies revealed a suprasellar lesion which might well eventually lead to a bilateral occlusion of the foramina of Monro. The symptoms prompting readmission were primarily those of an obstructive hydrocephalus and with the disclosure of a bilateral non-communicating hydrocephalus of the lateral ventricles, a bilateral occlusion of the foramina of Monro appeared a reasonable explanation for the rapid deterioration in the patient’s condition. Obviously, ventricular dilatation had not existed a long enough period of time to expect rupture of the septum pellucidum, so that a bilateral Torkildsen procedure appeared justified.

Case 2. A 20-year-old white female, admitted Dec. 3, 1948, complained of marked menstrual irregularities since onset of menstruation at age 14 and of rapidly failing vision. Headaches and occasional periods of nausea and vomiting had existed for 6 months. Positive findings were confined to the examination of the eyes. There was present a bilateral acute papilledema of 5 D, and reduction of visual acuity to gross finger movement at 4 feet. Roentgenograms of the skull demonstrated evidences of a long-standing hydrocephalus with a calcified area measuring 3\(\times\)2\(\times\)1.5 cm. in and superior to the sella turcica. Bilateral craniotomy disclosed a firm, calcified, non-demarcated adamantinomma, densely adherent to the optic chiasm and tracts. A piecemeal removal of the tumor accomplished little in decompressing the chiasm. The postoperative course was stormy and because of persisting papilledema and stupor, a ventricular shunting procedure was deemed necessary. The finding of a severe bilateral non-communicating hydrocephalus on ventriculographic studies prompted a bilateral Torkildsen procedure (Fig. 2). Postoperatively, there was prompt subsidence of the papilledema, and relief of headache and somnolence. The visual acuity 4 months later was recorded at 2/300 O.D. and 2/1000 O.S., a distinct improvement over the preoperative findings on the right.

Comment. Ventriculographic studies, because of the obvious pathology present, were not considered necessary. Because of the fact that the primary problem was one of preserving vision and in view of the probable existence of a non-cystic lesion, a primary approach to the neoplasm was carried out but