THIRD VENTRICULOSTOMY PATENT AFTER FIFTEEN YEARS


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When obstructive hydrocephalus in adults is due to a lesion that is not removable, one of two palliative procedures may be employed. The obstruction may be bypassed by a tube leading from the lateral ventricle into the cisterna magna, as described by Torkildsen. Or the accumulation of excess fluid in the ventricle may be prevented by opening a communication between the 3rd ventricle and the basal cisternae. This procedure, first described by Dandy1 in 1922, was devised for congenital hydrocephalus in older age groups. Among others its use has been described by Stookey and Scarff2 and by White and Michelsen.3 The latter reported on its use in 11 cases; of these, the longest survival up to the time of reporting was 23 years. In Dandy’s report in 1945 there was 1 patient living 23 years after operation and 3 living between 10 and 20 years.

It is a fair assumption that these long survival periods are dependent on the continuous patency and functioning of the artificial stoma, though the verification of such a conclusion is lacking. In a case reported by Sweet4 the spontaneous ventriculostomy found at necropsy had, to judge by the history, functioned for 12 years. The following case report yields additional proof of the long-range patency of a ventriculostomy.

CASE REPORT

In 1931, a young woman aged 17 years was admitted to the Neurological service of the Mount Sinai Hospital, complaining of adiposity of 2 years duration and visual difficulty for 4 months. She had always been plump and became definitely stouter with increase in food consumption. The first visual difficulty was that of black spots before both eyes. Then vision in the left eye became impaired, followed by loss in the right eye. Two months prior to admission vision was so poor that she was unable to distinguish objects or colors. For 2 months she had complained of tinnitus in the left ear with some loss of hearing in both ears, slight vertigo and occasional headache. There was nothing in the history to suggest polyuria, polydypsia, nor menstrual disturbances.

Examination. She was noted to grope her way about the ward because of visual loss. Her

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extremities were large proximally and tapered distally. Her breasts were very large. There was right-sided hyperreflexia, slight bilateral exophthalmos and inconstant nystagmus in extreme lateral gaze. Papilledema of $2\frac{1}{2}$–3 D. with pale discs suggesting atrophy was present. The skull plates showed some enlargement of the sella with destruction of posterior clinoids and partial loss of dorsum sellae. Vision was too poor to do perimetric studies.

The cerebrospinal fluid was under a pressure of 340 mm. water; total protein content was 30 mg. per cent.

Because of the enlarged sella, loss of vision, and the endocrine disturbances operation was undertaken for a probable pituitary tumor.

Operation. Nov. 27, 1931. A right frontal bone flap was fashioned. When the anterior horn of the ventricle was tapped it was found to be dilated. Some 60 cc. of fluid were withdrawn.

![Fig. 1. Calcified mass.](image)

Behind the chiasm a bluish cystic mass was exposed. It yielded blood-tinged clear fluid. Its thin wall was torn into and large amounts of clear fluid welled up into the field, more than could be accounted for by the size of the "cyst" exposed. It was assumed that the cyst was a multilocular one, that it extended backward and that it pressed upward into the 3rd ventricle, causing the hydrocephalus.

Postoperative course was gratifying, and vision improved steadily. Six weeks after operation visual fields showed a binasal hemianopsia.

The follow-up notes showed at 3 months she counted fingers at 8 feet.

In 1933 she reported that a thyroid adenoma had been removed.

In 1934 she could read large print.

In 1937 she reported she had had a pregnancy interrupted and that she had lost 50 pounds in weight.

She failed to report again until 1946. She was referred back to the hospital with com-