CASE SHOWING (1) DEFECTIVE DEVELOPMENT
OF DURA MATER, (2) OLD MENINGITIS, AND
(3) INTERNAL HYDROCEPHALUS.

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AT an autopsy on the body of an idiot male, aged 40 years, the following facts were noted.

The skull-cap was thin and dense, and somewhat asymmetrical, being flattened anteriorly and to the left. Dolicocephaly was present to a considerable extent. The external surface of the dura mater appeared normal. There was no thickening nor undue adhesion. The falx cerebri was absent, except for two minute folds—one an inch in front of the olfactory bulb, the other at the level of the occipital lobes. The tentorium cerebelli was absent except a small portion on each side which projected inwards for about an inch at its widest part. A small ridge represented the falx cerebelli. The pia-arachnoid was thickened and opaque, especially over the vertex. The great longitudinal fissure was obliterated by pia-mater, the arachnoid passing uninterruptedly over it. The interval between cerebrum and cerebellum was similarly obliterated, pia-mater uniting the one to the other, except where the portions of the tentorium were present. The thickening and adhesion of the pia-arachnoid was much less marked on the base of the brain. The meningitis had been mainly lateral and vertical, especially the latter. There was considerable thickening and adhesion about the Sylvian fissures. There was a moderate amount of clear fluid in the subarachnoid space, much in the cisternæ magna and pontis. The brain mantle was wasted. The cerebrum was nearly symmetrical, the convolutions of natural arrangement.

FIG. I

On making a frontal section of the brain, the interior was found to consist of one large cavity, the various ventricles having united into one. The cavity was five inches long, and three and a half inches broad. The cornua of the lateral ventricles were much dilated. The structures in the region of the fifth ventricle had entirely disappeared. The roof of the cavity was formed by white matter laterally, and centrally by a somewhat flattened corpus callosum, on the under surface of which were irregular rounded tubercles of gray matter. The floor of the cavity owing to the fusion of the third with the lateral ventricles became practically the normal floor of the third and lateral ventricles, though much more of optic thalamus and caudate nucleus was visible than usual. The posterior cornua had fused with the suprapineal recess which was much distended. The aqueduct of Sylvius was of the usual calibre.

The patient is stated to have had scarlet fever when 3 years old, and to have been imbecile ever since.

One must assume that the abnormality of the dura was congenital. Probably the meningitis would be a complication of the scarlatina, and, owing to the absence of dura mater, one can readily understand the adhesion of cerebrum to cerebellum, and of the two lobes of the cerebrum to one another along the great longitudinal fissure. The meningitis would, of course, also cause the internal hydrocephalus by blocking the means of communication from the ventricular cavities to the subarachnoid space.

DESCRIPTION OF FIGURES.

FIG. 1.—*A view of the base of the skull showing the defective development of the tentorium cerebelli (T).*

The normal outline of the tentorium is indicated by the coarsely dotted line, while the finely dotted line indicates the situation of the lateral sinus. Posteriorly is seen the remains of the falx cerebelli as a very thin ridge displaced to one side. F. Foramen magnum.

FIG. 2.—*Photograph of Frontal Section of Brain through tips of Cunei.*

The pia-arachnoid fills up the great longitudinal fissure, and the greater part of the interval between the cerebrum and cerebellum, there being no falx cerebri, and the tentorium being absent except as indicated laterally.

The lateral ventricles are very considerably dilated, and have been fused into one cavity. The posterior cornua have fused with the suprapineal recess, which is also much distended.

FIG. 2.

FIG. 3.

The arachnoid passes uninterruptedly over the great longitudinal fissure, which is displaced to the left and passes in a curved direction inwards.

The cerebellum is united to the cerebrum by pia-mater, except for about an inch on each side, where there is a depression into which the portion of the tentorium which is present dips.

The brain mantle of the cerebrum is much wasted.

The cerebellum is not wasted nor otherwise changed in naked-eye aspect.

FIG. 3.—*Photograph of Cast of the Fused Ventricular Cavity (under surface).*

The irregular surface in the centre is due to the vessels of the choroid plexus.

A.C. Anterior cornu.

D.C. Descending cornu.

P.C. Posterior cornu.

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