Vascular Malformations ("Angiomas") of the Dura Mater

Report of Two Cases

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Vascular malformations ("angiomas") of the intracranial dura mater are rare.

Case Reports

Case 1. (A.F.I.P. Acc. No. 633271) A 52-year-old man, with a diagnosis of schizophrenia, died suddenly of coronary artery thrombosis. He had shown no localizing neurological signs or symptoms, and there were no stigmata of von Hippel-Lindau disease.

The pertinent intracranial abnormality was confined to the right leaf of the tentorium cerebelli, where a solitary "discoid, purplish mass" measuring 8 mm. in maximal dimension was found. This lesion was elevated 3 mm. above the dural surface. It was not stated in the protocol whether the lesion was on the dorsi or ventral surface of the tentorium.

Microscopically, this lesion proved to be a cavernous angioma (Figs. 1 and 2). No tissue suggestive of a meningioma or of a hemangio-blastoma was present.

Case 2. (A.F.I.P. Acc. No. 683398) A 54-year-old man died because of suppurative cholangitis, liver necrosis, and uremia. There were no localizing neurological signs or symptoms, and no stigmata of von Hippel-Lindau disease.

The pertinent intracranial autopsy findings were confined to the right leaf of the tentorium, where a 1.5 cm., lobulated, moderately firm mass was found. This lesion lay 2 cm. from the torcular Herophili, and had a base measuring 5 mm. in maximal extent. The cut surface was red and spongy. The mass was partially embedded

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Fig. 1. Case No. 1. Cavernous angioma of tentorium cerebelli, 8 mm.
This small lesion is confined to the dura. H. & E. ×10.

Fig. 2. Case No. 1. Note the scant amount of tissue between the large, blood-filled, endothelial lined sinu-
soids. Trichrome. ×40.
in the right occipital lobe, from which it was removed with ease.

Microscopic examination revealed a cavernous angioma (Figs. 3 and 4). There was no invasion of the occipital lobe by this benign lesion. No tissue suggestive of either a meningioma or of a hemangio-blastoma was present.

Discussion

We found only 2 "angiomas" of the intracranial dura among the nearly 500 vascular malformations of the central nervous system reviewed. The indexed literature in German and Italian shows only 3 acceptable cases of duralangiomas. Numerous other cases, which have been reported as dural angiomas, we considered to be either angioblastic meningiomas, angiomas involving the vein of Galen, angiomas involving dura and brain, or lesions inadequately described. Neither Noran nor Dandy, in their extensive reviews of the literature on intracranial vascular malformations, mentioned dural angiomas. Fracasso considered his case of a dural angioma unique, inasmuch as he found none in his review of the literature up to 1947. The lesion in our Case 2 and that in the case reported by Fracasso resembled meningiomas grossly, but microscopically were shown to be angiomas.

FIG. 3. Case No 2. Cavernous angioma of dura, 1.5 cm. H. & E. X8 (AFIP Neg. 65-6144).

It is of interest that in both of our cases the angiomas were of the cavernous type, as were those reported by Fracasso and Mariantschik. Rosenhagen described the angiomas in his patient as "angioma" venosum racemosum.

In both of our cases the angiomas arose from the tentorium cerebelli. Apparently neither malformation caused symptoms. In the case reported by Rosenhagen, there appeared to be 3 distinct dural angiomas, all located in the spinal dura. Among all of the other cases the angiomas have been solitary lesions. The cavernous angioma described by Fracasso measured 3.5 cm. in greatest dimension, while that reported by Mariantschik was said to be the size of a "raspberry." The angiomas reported by Rosenhagen were said to be the size of a "cherry stone."