Angiography in Intracerebral Cavernous Hemangioma

B. Liliequist

Department of Diagnostic Neuroradiology, University of Umeå, Umeå, Sweden

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Summary. Only a few cases with proven cavernous hemangioma have been examined with rapid serial angiography and the subtraction procedure. With the use of this technique a group of angiographic signs can be found which makes it possible to make an accurate diagnosis of a cavernous hemangioma. The angiographical changes are discussed in 3 cases.

Case Reports

Case 1

A man, 64 years of age, who suffered from chronic bronchitis suddenly developed severe headache, aphasia and somnolence. At the hospital the cerebrospinal fluid was bloody. There was papilledema, a right hemiparesis and paresis of the facial nerve. Bilateral carotid angiography was performed. This showed an avascular lesion in the left temporal lobe and an adjacent region anteriorly, with a marked capillary blush and early filling veins which were dilated (Fig. 1). Subsequent operation disclosed a large intracerebral hematoma in the temporal lobe. Medially in the cavity there was a cluster of malformed vessels fed from branches of the middle cerebral artery, which was considered to be an angiomma and was removed. The histological examination showed mainly red blood cells and a few small vessels. The biopsy material, although very limited, did not contradict the diagnosis of a cavernous hemangioma exposed at operation.

Case 2

A woman, 47 years of age, who suffered from migraine since childhood, suddenly experienced severe headache, dizziness and vomiting. Lumbar puncture showed a bloody cerebrospinal fluid. She also had a central paresis of the face on the right side. Bilateral carotid and left vertebral angiography were performed. On the right side a region with a capillary blush appeared in the temporal lobe. From this area dilated and early filled veins were seen to empty into the superior petrosal sinus. No avascular mass and no sign of enlarged feeding arteries were seen (Fig. 2). Left carotid...
Fig. 1. Left carotid angiography. Capillary blush and early filling temporal veins with a temporal mass.

Fig. 2. Right carotid angiography shows a region with capillary blush and early filling veins. No signs of a mass lesion or feeding arteries.