

An Intra-orbital Aneurysm of the Ophthalmic Artery

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SUMMARY

The radiographic demonstration of an intra-orbital ophthalmic aneurysm, in which the normal choroid blush was demonstrated, is reported.

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Aneurysms of the intra-orbital portion of the ophthalmic artery and its branches are exceedingly rare. Lombardi,¹ investigating 370 intracranial aneurysms, found none arising from the intra-orbital ophthalmic artery. Few single case reports have recently been published.^{2,3} The purpose of this article is to report a patient with loss of vision in the left eye due to an aneurysm arising from the intra-orbital part of the ophthalmic artery, and in which the choroid blush was still evident. These appearances were only adequately demonstrated on selective internal carotid angiography with subtraction.

CASE REPORT

A 38-year-old man presented with sudden blindness in the left eye. This was associated with a feeling of fullness in the eye, but he felt no pain. Examination of the left fundus showed optic atrophy, with reduced arterial vascularisation. The rest of the neurological examination was normal.

Plain roentgenograms of the skull and orbits were normal. Left common carotid angiography did not demonstrate the ophthalmic artery (Fig. 1). The intracranial circulation was normal. Selective internal carotid angiography with subtraction demonstrated an intra-orbital aneurysm arising from the ophthalmic artery (Figs 2 and 3). The normal choroid blush was observed in the later arterial as well as in the early venous phases (Fig. 4). No treatment was recommended because of absence of vision in the eye.

DISCUSSION

Intra-orbital aneurysms may not be as rare as is reported. With improvements in technique, more patients presenting with ocular problems may be shown to have intra-orbital aneurysms. These aneurysms seem to grow slowly, and



Fig. 1. Left common carotid angiogram, arterial phase, lateral projection. The ophthalmic artery is not seen.

ocular disturbances are constant. These include decrease in vision, altitudinal visual defects and unilateral choked discs.

Demonstration of the ophthalmic artery may be suboptimal, especially when common carotid angiography is performed. It is therefore advisable to perform selective internal carotid angiography, since this results in better filling of the ophthalmic artery and its branches. Good visualisation is further influenced by the calibre of the artery. It is stated that the ophthalmic artery and its branches are best seen angiographically when, because of different pathological conditions, they are dilated. Indeed, many details in the angiographic distribution of the ophthalmic artery and its branches are demonstrated only

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Fig. 2. Left internal carotid angiogram, demonstrating an aneurysm (arrow) on the intra-orbital part of the ophthalmic artery.

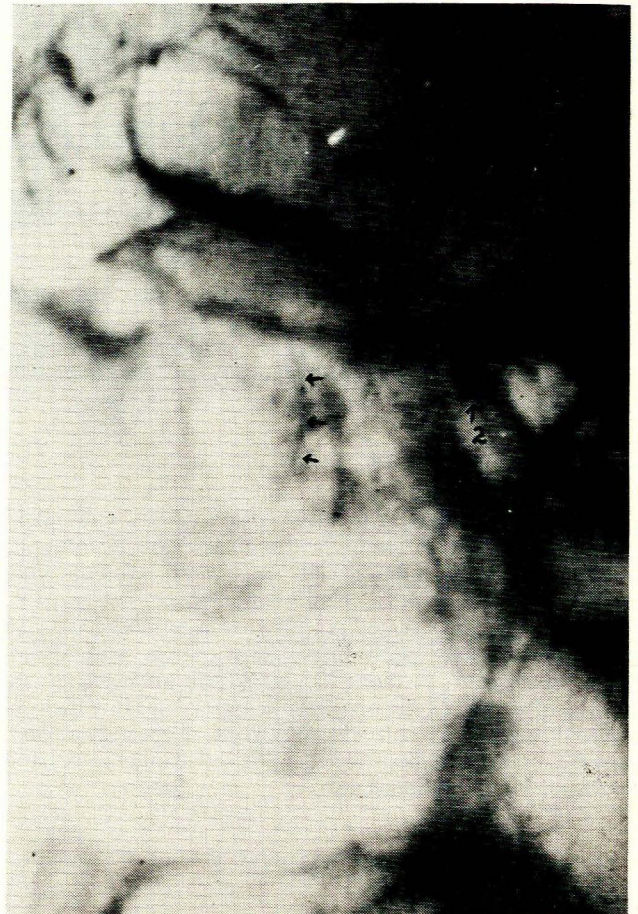


Fig. 4. Left internal carotid angiogram, lateral venous phase close-up, showing the choroid blush (arrow). Note the aneurysm (arrow 2).

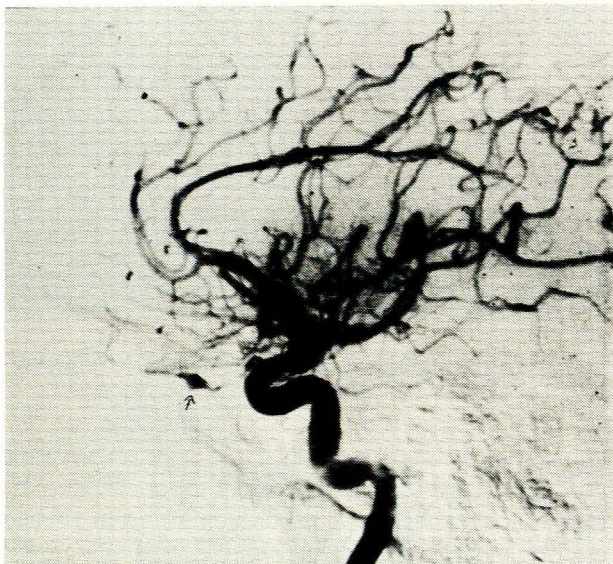


Fig. 3. Left internal carotid angiogram with subtraction and magnification, showing the intra-orbital ophthalmic aneurysm (arrow).

in abnormal cases.⁴ Handel *et al.*⁵ have reported that adequate demonstration of the ophthalmic artery with absence of the choroid blush is indicative of a pathological condition. However, the reverse is not true, as is demonstrated in our patient, since in the presence of blindness and an aneurysm of the ophthalmic artery, the choroid blush was still evident.

This type of aneurysm is to be distinguished from carotid-ophthalmic aneurysms which arise from the carotid artery at the origin of the ophthalmic artery.^{6,7}

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