The Terminology of Transient Visual Loss Due to Vascular Insufficiency

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SUMMARY Transient visual loss due to cerebro-ocular vascular disease is a common symptom. The purpose of this paper is to present a unified terminology of the monocular vs. binocular or homonymous types. Lack of proper identification may lead to mis-diagnosis and improper management of these entities.

Monocular blurred vision must be investigated since its origin is so commonly due to atherosclerosis of the carotid system. Binocular blurred vision due to vertebro-basilar insufficiency is managed conservatively in almost all instances.


IT IS UNIVERSALLY acknowledged that the most reliable indicator of impending ischemic stroke is a transient ischemic attack. The semantics of the ocular symptomatology have become confusing and are often merely referred to as transient visual obscurations. It is the purpose of this communication to attempt to clarify this matter.

The first distinction one must make in describing the ocular symptoms is whether they are monocular or binocular. The monocular attacks are designated as amaurosis fugax and transient monocular blindness and are due to vascular insufficiency in the optic nerve and retina, whereas transient binocular blindness indicates involvement of the posterior visual pathways. Secondly, one should ascertain the duration of the attacks. Accompanying neurologic signs or symptoms provide additional evidence as to the localization of the ischemic process in the visual system.

Amaurosis fugax is a monocular fleeting attack of partial to total (rare) blindness lasting from seconds to a few minutes. It is usually considered to be due to emboli but may be due to a perfusion deficit at the nerve head as in papilledema or incipient anterior isch-
ly reproduce either the fortification (teichopsic) or the scintillating scotoma seen in classic migraine which characteristically lasts 15–30 minutes and really cannot be differentiated from vertebro-basilar insufficiency. It was this association that led the author to name these attacks “Isolated Ophthalmic Migraine”. 2-3 Others have referred to these visual episodes as Acephalgic Migraine4 since they do not have headache associated with them.

Fischer recently reported his experience at length of “migrainous accompaniments” including transient attacks of blindness, homonymous hemianopsia and blurring in patients after the age of 40 without headache and with normal cerebral angiograms.5 He defended the use of the term “migraine” as used by this author. 3 However, to save confusion, these visual attacks would probably be best referred to as Transient Binocular Blindness. Their pathogenesis may be different from the vasoconstriction as defined by Wolff* or the shunting mechanism as described by Heyck. 7 Fisher feels they are rarely caused by basilar artery disease.

The following terminology is suggested: 1) transient blurred vision as an overall designation, 2) transient monocular blindness to be divided into — a) amaurosis fugax (seconds to minutes), b) transient monocular blurring, more prolonged unilateral attacks, 3) transient binocular blindness — homonymous attacks of 5–30 minutes duration. The mechanism and the pathogenesis of these symptoms are complex and, in particular, the attacks of transient binocular blindness are poorly understood but if we all refer to them in similar terminology we may have taken a step forward.

References

Cerebral Infarction Secondary to Unsuspected Intracranial Fibromuscular Dysplasia Following Bypass of Aortic Coarctation

FIBROMUSCULAR DYSPLASIA (FMD) is a non-atheromatous, segmental stenosing angiopathy. There are reports of involvement of nearly all systemic arteries. 1 FMD, however, is uncommon in the intracranial circulation. 2-5 Many patients with FMD harbor other vascular or developmental lesions 1 but it has not previously been reported in association with tubular segmental aortic stenosis or coarctation. This report concerns fatal cerebral infarction in a patient with unsuspected intracranial FMD following bypass of an aortic coarctation. It illustrates the importance of recognizing the possible co-existence of FMD and other vascular anomalies.

SUMMARY Fibromuscular dysplasia (FMD) is an uncommon finding in the cerebral circulation. We present a case of unsuspected intracranial FMD in a patient dying from a large cerebral infarct following a bypass operation for coarctation of the aorta. The need for recognizing the possible co-existence of these two lesions is emphasized.

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