damage, the macula being the most vulnerable retinal area (recanalisation of the ocular vascular system had occurred more than 105 minutes after occlusion in all patients). Reoclusion occurred in only the eldest patient, who was not given anticoagulation treatment, after 10 days and resulted in amaurosis.

General examinations of all patients detected no arrhythmias, carotid stenoses, or embolic disorders.

Severe hypertension was found in only the eldest patient, which implies that atherosclerotic changes in the wall of the ocular central artery were more likely than endothelial oedema to have been causal factors in this case.

Comment

After several hours of ischaemia due to an occlusion, fluorescein escapes from the occluded retinal arteries despite the so called blood-retina barrier, which is normally impenetrable to it. This means that the first line of defence, the endothelial cell, is not functioning normally. The primary cause of this dysfunction is the cell's oedema.

The angiographically documented recirculation in our patients was attributable to the single intravenous bolus of high dose steroid. Given the time course of blindness in acute occlusion (105 minutes),1 plasma expander and anticoagulant treatment (days later) would have been too late. Steroids are always the fastest working substances in oedemas of other organs, such as the brain. However, to our knowledge, angiographic evidence of the immediate efficacy of steroids on vessel walls has not been documented. As our patients showed angiographically complete recirculation in the eye so quickly after steroid application, their oclusions were probably due to vasospasm with consecutive ischaemic endothelial oedema rather than atherosclerosis, particularly in the younger patients.

A steroid bolus seems to be a suitable emergency treatment. Steroids do not interfere with any drugs that might be given for this condition. Possible side effects compared with other treatments—for example, lysis—are negligible. The possibility of giving other treatments simultaneously is also not ruled out: in other words, even lysis could be started immediately after admission.

Correction

Progression of HIV disease in a haemophiliac cohort followed for 11 years and the effect of treatment


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