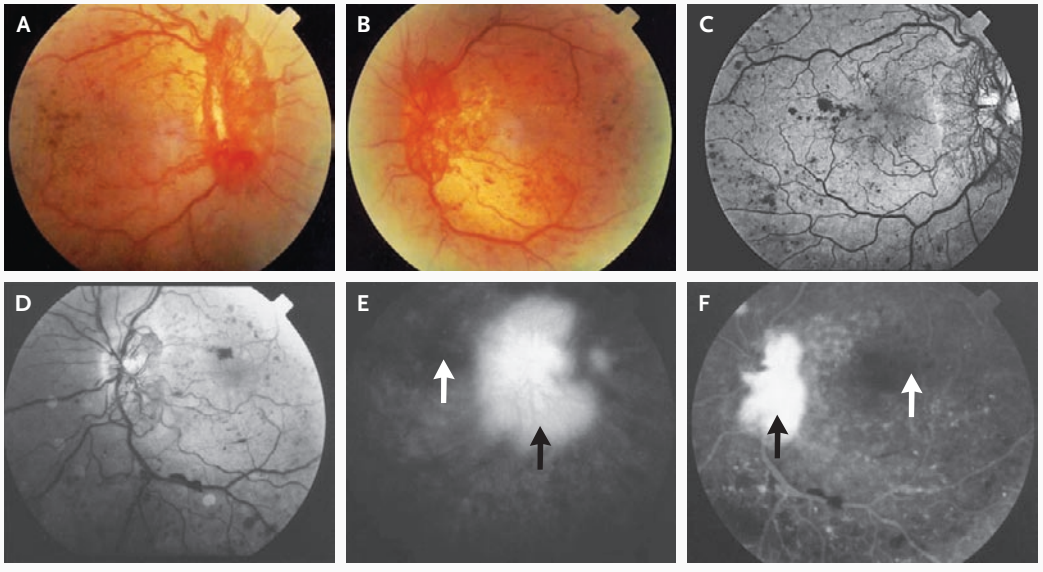
IMAGES IN CLINICAL MEDICINE

Severe Proliferative Diabetic Retinopathy



A 44-year-old woman with a 20-year history of type 1 diabetes mellitus presented with progressive visual loss over a period of 3 months in both eyes. She had no prior eye examinations, and on examination at our hospital her corrected visual acuity was 20/400 in the right eye and 20/40 in the left eye. She reported arterial hypertension, heavy smoking, and foot ulcers. Dilated ophthalmoscopy, performed at the first visit (Panels A and B), and red-free photographs (Panels C and D) and fluorescein angiography (Panels E and F), performed a week later, revealed severe, bilateral proliferative diabetic retinopathy with significant optic-disk neovascularization, especially in the right eye. As shown in Panels E and F, hyperfluorescence at the optic disk indicates leakage caused by neovascularization (black arrows), pinpoint areas of hyperfluorescence scattered throughout the fundus correspond to microaneurysms, and an enlarged area of hypofluorescence in the macula indicates macular ischemia (white arrows). Urgent bilateral panretinal photocoagulation with the use of an argon laser was performed to prevent vitreous hemorrhage. At 8 months, her corrected visual acuity was 20/400 in both eyes. The patient died 3 years later from a myocardial infarction. Substantial optic-disk neovascularization may be seen in extreme cases of proliferative diabetic retinopathy. Close follow-up is imperative, since severe retinopathy is associated with visual loss and other diabetic complications such as neuropathy and cardiovascular disease, as seen in this patient. Screening with early treatment may reduce the incidence of these complications.

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