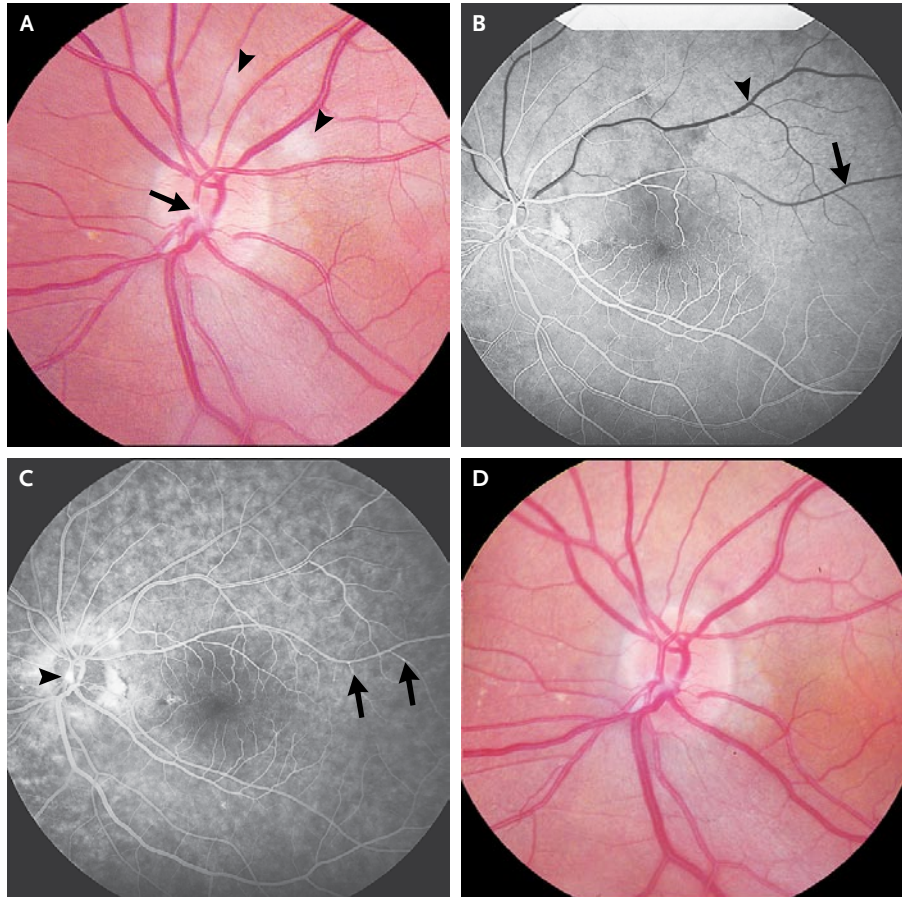


IMAGES IN CLINICAL MEDICINE

Central Hemiretinal Arterial Occlusion



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A 65-YEAR-OLD WOMAN WITH A HISTORY OF HYPERTENSION AND CIGARETTE SMOKING PRESENTED WITH complete loss of vision in the inferior field of the left eye, which she had noticed an hour before presentation. She reported having had two transient episodes of amaurosis in the left eye the previous day. Visual acuity was 20/20 in both eyes. Dilated ophthalmoscopy of the left eye revealed a nonrefractile plaque in the proximal superior retinal artery (Panel A, arrow). Superficial retinal whitening in the superior macula signified retinal ischemia (Panel A, arrowheads). Fluorescein angiography showed delayed vascular filling in the superior retinal arteries (Panel B, arrow) and veins (Panel B, arrowhead), which was consistent with her symptoms of a defect in the inferior visual field. On angiography, multiple intraarterial emboli were visible in distal arterioles (Panel C, arrows), along with hyperfluorescence of the arterial plaque (Panel C, arrowhead). A diagnosis of hemiretinal arterial occlusion was made. Ocular massage and paracentesis of approximately 0.05 ml of aqueous humor from the anterior chamber were performed to lower the intraocular pressure. Two hours after the procedure, the patient reported complete resolution of the visual defect. On follow-up retinal examination, the arterial plaque and retinal ischemia had resolved (Panel D). Echocardiography and magnetic resonance angiography of the carotid arteries were negative for embolic sources. Results of laboratory testing for hypercoagulability and inflammation were within normal limits. Because of the location of the arterial occlusion over the optic nerve, this diagnosis can be made at the bedside with a direct ophthalmoscope. Diagnosis of occlusion of the retinal artery should prompt an immediate ophthalmology referral and a systemic workup for possible embolic or thrombotic causes.

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