A 49-year-old woman presented for a routine eye examination. She had no history of systemic disease and took no medications. The patient's best corrected visual acuity in each eye was 20/20. Ophthalmic evaluation was unremarkable except for a single area of whitish opacification along the supratemporal arcade vessels in the left eye. The ovoid lesion with somewhat nondistinct borders appeared to overlie the retinal vasculature. No other abnormalities, such as emboli, edema, hemorrhage, or hard exudate, were noted. This patient has a cotton-wool spot, also called a soft exudate or a cystoid body. These areas of superficial whitening arise in the nerve fiber layer of the retina as a result of capillary infarction. They may occur singly or as multiple scattered spots in the posterior pole along the distribution of the radial peripapillary capillaries or the retinal vascular arcades. Cottonwool spots are transient; however, an area of focal fibrosis can be left behind after the spots resolve. Cotton-wool spots can develop in persons who sustain trauma to the retina. They are also associated with diabetic retinopathy; malignant hypertensive retinopathy; collagen vascular diseases, such as systemic lupus erythematosus; giant cell arteritis; carotid artery disease with emboli; cardiac valvular diseases with emboli; retinal vein or retinal artery occlusions; ocular ischemic syndrome; radiation retinopathy; anemia; leukemia; papilledema; generalized carcinomatosis; and AIDS. Cotton-wool spots are the most characteristic sign of AIDS-related retinopathy and are seen in many AIDS patients. The lesions are not generally associated with secondary retinal infection. This patient's blood pressure, fasting glucose and antinuclear antibody levels, and other laboratory results were normal. Results of a transesophageal echocardiogram and of a thalium stress test were also normal. Carotid duplex ultrasonography demonstrated a 40% left internal carotid artery stenosis. The patient was referred to a vascular specialist for further evaluation.

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