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### CASE

The patient is a middle-aged female PA student who developed a nonproductive cough during her surgical rotation. Her physician noted that she was wheezing and started her on an antibiotic, an antihistamine, and prednisone (10 mg twice daily). While the patient was assisting at surgery 3 days later, she noted sudden, painless blurring of central vision in her left eye.

Sudden monocular visual disturbance is usually associated with pathology anterior to the optic chiasma. Some of the most common causes include retinal detachment, cerebrovascular disease (amaurosis fugax), ischemic optic neuropathy, retinal vessel occlusion, and vitreous hemorrhage.

### DISCUSSION

The patient was seen emergently by an ophthalmologist. When fundusoscopic examination failed to produce a definitive diagnosis, the patient was referred to a retinologist, who performed fluorescein angiography (see Figure 1). Bilateral central serous chorioretinopathy (CSCR) was diagnosed.

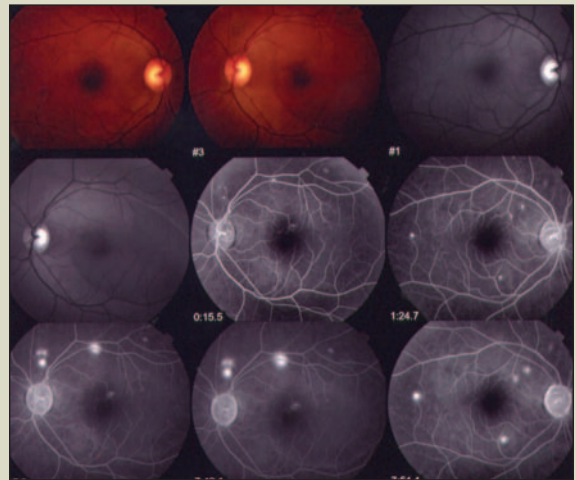
**Comment** CSCR is a condition involving a small break in the retinal pigment epithelium. This break allows fluid from choroidal capillaries to enter the subretinal space and cause a localized retinal detachment in the macula. The condition shows a predilection for men aged 25 to 50 years; when CSCR occurs in women, they are usually older than 50 years. The incidence of CSCR is also increased during pregnancy and in patients who have connective tissue disorders (such as systemic lupus erythematosus.)

Elevated serum cortisol levels have been implicated in the genesis of CSCR.<sup>1</sup> Some studies indicate that the condition is more prevalent in persons who are anxious, under emotional stress, or have a so-called "Type A" personality. The administration of exogenous steroids has also been noted to precipitate or exacerbate CSCR, as it apparently did in this case.<sup>2,3</sup>

Diagnosis can usually be made by a dilated fundus examination and indirect ophthalmoscopy, which will demonstrate the presence of a fluid-filled "blister" on the macula. Fluorescein angiography may be used to confirm the diagnosis, as the defect will readily fill with dye and may demonstrate a characteristic "smokestack" appearance.

There is no single recommended treatment for CSCR. In most cases, the condition will resolve spontaneously over the course

FIGURE 1



Fluorescein angiography demonstrates multiple areas of subretinal serous fluid collection in both eyes.

of weeks to months. Many ophthalmologists recommend some form of lifestyle modification that will enable the patient to decrease stress and reduce endogenous cortisol release. Pharmacologic therapy with beta-blockers and benzodiazepines to speed resolution has been attempted but without good results; one study indicated that the use of nadolol actually prolonged the duration of the condition.<sup>4</sup> If the condition fails to resolve in a timely fashion (within 6 months) or seriously interferes with a patient's activities or occupation, laser photocoagulation may be undertaken in an attempt to seal the leak.

In general, CSCR carries a favorable prognosis. Most studies indicate that 85% to 90% of patients with previously normal vision will recover vision to 20/30 or better, although subtle defects such as mild distortion or decreased night vision may persist. The condition has been known to recur.

**Outcome** At the initial ophthalmologic evaluation, the patient's vision was estimated to be 20/400 in the more seriously affected eye. Suspecting a possible drug reaction, she immediately discontinued her medications. When evaluated by the retinologist several days later, her vision had improved to 20/200. At 4 weeks, the patient's vision was approaching baseline, and she was participating in clinical rotations without difficulty. □

### REFERENCES

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