A 62-year-old patient presented to the ophthalmology department with sudden painless vision loss in her right eye that occurred 24 hours ago. She also reported a 4-week history of right ear pain and fullness, discomfort over her frontal and maxillary sinuses, and nasal congestion without discharge. Over the past 2 weeks, she had experienced drenching night sweats, cramps in her quadriceps, and weight loss of 3 kg. She denied respiratory symptoms, headaches, scalp tenderness, or jaw claudication. She took no regular medication and did not smoke.

At presentation, her visual acuities were perception of light OD and 20/20 OS. There was a right relative afferent pupillary defect. Dilated fundus examination showed a cherry red spot in the right macula with hyperreflectivity and thickening of the inner retinal layers on optical coherence tomography (Figure 1A and B). External eye examination results and ocular motility were normal. Examination by an otolaryngologist revealed normal tympanic membranes and a dry but otherwise normal nasal mucosa on flexible endoscopy. Blood tests showed leukocytosis (white blood cell count, 15 000 /µL; to convert to 109 per liter, multiply by 0.001) with neutrophilia (white blood cell count, 12 500 /µL), elevated C-reactive protein (19.4 mg/dL; to convert to milligrams per liter, multiply by 10), elevated plasma viscosity (2.06 mPas), and thrombocytosis (467 ×103/µL; to convert to ×109 per liter, multiply by 1). Kidney function was within normal limits. Chest radiograph results were unremarkable.

What Would You Do Next?

1. Request a magnetic resonance image of orbits and sinuses
2. Commence high-dose corticosteroids
3. Commence broad-spectrum antibiotics
4. Request urgent stroke consult