Systemic Lupus Erythematosus-associated Retinal Vasculitis

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Retinal vasculitis is an uncommon but potentially sight-threatening manifestation of systemic lupus erythematosus (SLE). The most common findings include retinal hemorrhage, “cotton-wool” spots, and vasoocclusion\(^1,2\). While the exact pathogenesis is unclear, it is thought that antiphospholipid antibodies, immune complex deposition, and complement activation are involved\(^1\). Systemic corticosteroids and cyclophosphamide are established treatment options for vasculitis, but case studies show promise with rituximab and plasma exchange\(^3,4,5\).

A 38-year-old woman with established SLE presented with acute onset of painless blurred vision and “floaters” in her right eye. She reported a 2-day history of headache, photosensitivity, arthralgia, and muscle weakness. Laboratory investigations revealed hemoglobin 9.8, erythrocyte sedimentation rate 58 mm/h, creatine phosphokinase 259, and proteinuria. Best corrected visual acuities were counting fingers at 6 feet in the right eye and 20/30 in the left eye. Visual fields were full to confrontation; external examination showed conjunctival hyperemia in both eyes. Slit lamp examination revealed anterior chamber cells, flare, and keratic precipitates in both eyes. Intraocular pressures were normal. There were 1+ white cells in the vitreous in both eyes. Fundus examination (Figure 1), fluorescein angiogram (Figure 2 and 3), and optical coherence tomography (Figure 4) were consistent with retinal vasculitis. Prednisone dose was increased from 10 mg to 60 mg daily and she complet-
ed 7 monthly infusions of cyclophosphamide. After 2 weeks, visual acuity in the right eye had improved to 20/200 and macular thickening had resolved. Five months later, visual acuity in the right eye measured 20/30, with fundus photography revealing resolution of retinal hemorrhages and intraocular inflammation (Figure 5). Mycophenolate mofetil is currently being used as maintenance therapy.

REFERENCES