

IMAGE Dx

Roth Spots—More Than Meets the Eye

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FIG. 1. Fundoscopic view of macula and optic disc showing numerous Roth spots.



FIG. 2. View of temporal macula with many Roth spots.

A 50-year-old female patient with a past medical history of Sjogren's syndrome and polymyositis presented with fever, rash, swelling, and pain in her extremities. Skin biopsy confirmed vasculitis. She was treated with steroids and azathioprine. However, she developed sudden-onset central visual blurring in her right eye on the fifth day of hospitalization. Fundoscopic exam showed multiple central white-centered retinal hemorrhages (Roth spots, Figures 1, 2) and vascular sheathing, consistent with retinal vasculitis. Blood cultures were negative. Transthoracic and transesophageal echocardiograms were normal. She was treated with

high-dose intravenous steroids and cyclophosphamide, with visual improvement and a marked reduction in the number of Roth spots.

Roth spots¹ are nonspecific intraretinal hemorrhagic lesions with a white center due to fibrin deposition. Although historically associated with infective endocarditis, they can also occur in other systemic diseases such as connective tissue disorders, vasculitis, leukemia, diabetes, hypertension, anemia, trauma, as well as disseminated bacterial and fungal infections.

Reference

1. Duane TD, Osher RH, Green WR. White centered hemorrhages: their significance. *Ophthalmology*. 1980;87:66–69.

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