A patient in their mid-30s with a medical history of deceased donor kidney transplant, cytomegalovirus (CMV) colitis, and CMV viremia with documented resistance to foscarnet and ganciclovir (UL97 and UL54 gene mutations) presented with new-onset floaters in both eyes. The patient was taking systemic immunosuppression but recently stopped taking maribavir because of concerns about resistance and was transitioned to cidofovir and CMV immune globulin. On clinical examination, the visual acuity measured 20/25 OD and 20/20 OS. Motility, visual fields, and anterior segment examination were normal. Dilated fundus examination revealed tortuous vasculature, multiple cotton wool spots along the arcades and periphery, and granular, hypopigmented retinal lesions without hemorrhage in the macula and temporal periphery in both eyes (Figure 1A). Optical coherence tomography showed localized areas of full-thickness retinitis (Figure 1B). CMV titers indicated viremia at 2.24 million IU/mL. Despite the patient’s documented UL97 and UL54 mutations, a series of 5 biweekly intravitreal injections of foscarnet and ganciclovir were performed given their vision-threatening lesions. Retinal pathology failed to improve, and the patient eventually refused additional intravitreal therapy because of pain and transiently decreased vision after each injection.

What Would You Do Next?

1. Observation with systemic cidofovir and CMV immune globulin
2. Multivirus-specific cytotoxic T lymphocytes (CTLs)
3. Continued foscarnet and ganciclovir intravitreal injections
4. Leflunomide initiation