A 45-Year-Old Woman with Fever and Splenic Infarcts

(See page 1093 for Photo Quiz)

Figure 1. CT scans of the abdomen 1 year prior to the onset of illness (left panel) and at the time of presentation (right panel). Marked hepatosplenomegaly and splenic infarcts are evident in the later image (right panel; arrows).

Diagnosis: Acute cytomegalovirus (CMV) infection in an immunocompetent host.

This patient was admitted to the hospital, and serologic testing for CMV revealed positive IgM and IgG responses. PCR of a blood sample for CMV DNA revealed 3500 copies/mm³. Because of her severe and prolonged symptoms, the patient received oral valgancyclovir (900 mg b.i.d.), with resolution of fever within 24 h after initiation of therapy. At a 2-week follow-up visit, she noted complete resolution of all of her symptoms, and PCR detected no CMV DNA in a blood sample obtained at that time. The patient received a total of 14 days of therapy without recurrence of disease.

The differential diagnosis of unexplained fever and splenic infarcts in an immunocompetent patient would include embolic events due to endocarditis; viral infections, such as with Epstein-Barr virus and CMV; infectious vasculitis, as observed in neisserial infections; and noninfectious etiologies, including sickle-cell disease, autoimmune vasculitides, and hypercoagulable states [1, 2].

CMV-related vasculopathy with thrombosis (figure 1) is clinically rare in the immunocompetent host. Jordan et al. [3] reported the first case of a CMV-related splenic infarct in a 26-year-old immunocompetent woman, and Ofotokun et al. [1] described a 50-year-old immunocompetent man with splenic infarcts related to CMV infection. Hepatic and portal vein thrombosis due to CMV infection has also been described in immunocompetent individuals [4–6]. CMV-associated vasculopathy is more common among immunocompromised patients—in particular, transplant recipients and HIV-infected patients—than among immunocompetent individuals. CMV induces accelerated cardiac allograft vasculopathy in heart transplant recipients [7], and there is an association between CMV infection and hepatic artery thrombosis in liver transplant recipients [8]. Although CMV infection has long been associated with arterial vasculitis in HIV-infected patients, venous thrombosis has also been documented [9].

Treatment of acute CMV infection in the immunocompetent host is generally not required unless the disease is considered severe, as characterized by multiorgan involvement. Eddleston et al. [2] reviewed 34 cases of severe CMV infection in immunocompetent patients, 5 of whom received ganciclovir. One of the 5 treated patients died of CNS involvement. The case
we describe is, to our knowledge, the first documented case of severe CMV disease in an immunocompetent host treated with valganciclovir.

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**References**