

Disseminated Herpes Zoster Infection

Kyaw Khaing Soe, MD

Resident, Internal Medicine Residency Program Affiliated With the David Geffen School of Medicine at UCLA, Los Angeles, California; and Dignity Health St. Mary Medical Center, Long Beach, California

Chester Choi, MD

Academic Chair of Medicine, Dignity Health St. Mary Medical Center, Long Beach, California; and Professor of Medicine, David Geffen School of Medicine at UCLA, Los Angeles, California

A 61-year-old woman presented with upper abdominal pain and a rash over the past week. She had had a kidney transplant 10 years ago and was on long-term tacrolimus, mycophenolate, and prednisone.

The rash had started in the midline of the abdominal wall as small vesicles, which eventually enlarged, spread, and then crusted (**Figures 1-3**). Patchy erythematous lesions also were present in the buccal cavity (**Figure 4**). She rated the abdominal pain as low grade, and it was not associated with hematemesis or melena. She had no known sick contacts and no history of a similar rash as an adult. She had had chickenpox and other common childhood diseases when she was young.

Intravenous acyclovir, 480 mg twice daily, was started with a



A maculopapular rash with crusted vesicles over the patient's anterior abdominal wall.

provisional diagnosis of disseminated zoster. Her dosages of tacrolimus and mycophenolate were reduced.

Computed tomography (CT) scans of the abdomen and pelvis with oral contrast revealed an edematous transverse colon. Viral studies were obtained from an unroofed skin vesicle and from an oral lesion. Varicella-zoster virus (VZV) polymerase chain reaction assay results were positive from both lesions, and serological test results on blood were also positive for VZV.

Colonoscopy revealed a normal colon; biopsies were taken and were negative for VZV by direct fluorescent antibody testing. Additional studies and serologies were negative for herpes



The maculopapular rash had spread to the patient's back.



A vesicular rash over the patient's forehead.



An erythematous patchy tender rash over the buccal mucosa.



Enanthem clearance with intravenous acyclovir therapy.

simplex virus 1 and 2, coxsackievirus (hand-foot-mouth disease), and murine typhus.

The patient reported slight itchiness of the left eye, but results of an ophthalmologic examination, including slit-lamp examination with fluorescein, were normal. The ocular symptoms eventually improved without further intervention. The skin and mucosal lesions resolved on intravenous acyclovir therapy (**Figure 5**), and the patient was discharged to complete 14 days of therapy with oral valacyclovir.

Discussion. The classic findings of zoster infection include a rash with a dermatomal distribution, which may evolve from vesicles to ulcers that crust and resolve. Painful neuralgia is a frequent and sometimes debilitating chronic sequela. Mucosal involvement (enanthem), however, is not a routine finding in

published case reports of disseminated zoster.

Findings in disseminated disease can include pneumonia, meningoencephalitis, ocular involvement, hepatitis, and intestinal manifestations.¹ In our patient's case, there was initial suspicion of viral colitis due to the abdominal pain and the imaging findings. The failure to find evidence of VZV in colonic tissues could have been due to the delay in carrying out the colonoscopy because of the need for colonic preparation and due to the ongoing antiviral therapy.

Treatment generally includes a reduction in a patient's immunosuppressive medications if feasible and the institution of intravenous acyclovir. Prevention is difficult, since the condition is a result of a reactivation of latent VZV, and even a recent zoster "outbreak" would not prevent subsequent reactivation.

The live zoster vaccine (Zostavax) is effective in reducing the incidence of reactivation but is contraindicated in immunosuppressed persons. The recombinant adjuvanted zoster vaccine (Shingrix) appears to have greater effect (97% vs 55% risk reduction) and longer duration (90% risk reduction in those older than 70) in preventing recurrences.^{2,3} The recombinant, not live virus, vaccine may be safer in immunocompromised persons, but both efficacy and safety in this population require further study. ■

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