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ABOUT COVER

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Gastrointestinal cytomegalovirus disease secondary to measles in an immunocompetent infant

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Abstract

Yang *et al* reported an immunocompetent infant with gastrointestinal cytomegalovirus disease secondary to measles infection. We express our opinion about the diagnosis and treatment of this rare disease.

Key Words: Gastrointestinal cytomegalovirus disease; Measles; Diarrhea; Immunocompetent infant; Rare disease

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Core Tip: We want to discuss the diagnosis and treatment issues in the rare gastrointestinal cytomegalovirus disease secondary to measles infection.

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**TO THE EDITOR**

We read with interest the study by Yang *et al*[1]. They highlighted the differential diagnosis and pathological features of gastrointestinal cytomegalovirus (CMV) infection in a 9-mo-old boy. In our opinion, some concepts about the diagnosis and treatment should be emphasized.

Measles leads to the morbidity of diarrhea and may cause dehydration and secondary malnutrition[2]. Its incidence is about 8%[3]. Instead, uncontrolled diarrhea caused by postnatally infected CMV in immunocompetent infants has been rarely reported. Differential diagnosis of the diarrhea cause is a great challenge to pediatric physicians, especially when most infants with neither endoscopic exam nor pathological confirmation of gastrointestinal CMV infection.

To our knowledge, most measles-infected patients only need supportive management, including fluid supply, antipyretics, and prevention of superimposed bacterial infections. There is no specific antiviral therapy. Although the efficacy in preventing and treating CMV infection has been proven in transplant recipients, Ganciclovir has not been supported effectively in treating pediatric patients[4]. It has been administered to infants with congenital infection[5] and cholestasis[6]; however, there are no controlled studies to support its effectiveness[5]. Fortunately, this 9-mo-old boy recovered completely after intravenous Ganciclovir administration with no evident side effects.

Low serum vitamin A level has been a common situation among children, even in some developed countries, *e.g.*, United States. Significant lower levels were encountered in critically ill children. Vitamin A deficit hinders the recovery course and increases measles-related complications. Besides, measles infection would further deteriorate the deficit of vitamin A serum concentration and aggravate the severity of xerophthalmia[7]. In a randomized controlled trial, lower morbidities and mortality have been found in measles-infected children after vitamin A supplement[8]. Thus, the World Health Organization recommended vitamin A administration to all acute measles-infected children[9]. We also suggest the same management to this 9-mo-old boy during the treatment course.

Vaccination is the most effective strategy to interrupt this virus transmission because it could lead to herd immunity, which must be maintained above 85% to 95% [10]. Thus, encouragement of measles vaccination is essential to avoid the occurrence of similar episodes.

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