

A Case of Small Bowel Obstruction Caused by Cytomegalovirus Infection

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The human cytomegalovirus (CMV), a member of the herpes virus family, can cause a lifelong infection with episodes of endogenous reactivation. Almost the entire adult Korean population has been infected with CMV; they have serum CMV antibodies of IgG class. Reactivation is clinically silent in immunocompetent individuals. Symptomatic illness, such as pneumonitis, retinitis, hepatitis or gastroenteritis, is usually confined to immunocompromized patients. The colon, stomach and esophagus are the organs frequently infected with CMV in these patients. A CMV infection may also complicate an inflammatory bowel disease. CMV enteritis involving the small bowel, which makes up less than 10% of the CMV gastroenteritis cases, usually presents with diarrhea, bleeding and perforation, but rarely evokes obstruction. The authors experienced a case of CMV enteritis of the terminal ileum, presenting as an intestinal obstruction, which developed in an immunocompetent individual with no underlying disease. This appears to be a world first. (*J Korean Surg Soc* 2002;62:512-516)

Key Words : Cytomegalovirus, Gastroenteritis, Intestinal obstruction, Immunocompetent

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(human cytomegalovirus, CMV) herpesviridae DNA CMV
 (primary infection) CMV 95%
 IgG CMV (re-activation) CMV
 (1,3-8) CMV
 (3,6,7,9) CMV

: 63 가 10

40 1

5 가 10 가

Hb 13.6 g/dl, 13,600/ μ l, 66%,
 24%, 8% 650,000/ μ l, CRP 7.9
 mg/dl(0.0 0.5 mg/dl) . AST 20 IU/l, ALT 12 IU/l

. HBsAg , HCV , HIV
 X-
 gaseous distension (Fig. 1),

(Fig. 2). 5

1 2

5 cm 20 cm : 12 15 cm

2 cc

cm

IgG , IgM 1 CMV HIV



Fig. 1. Simple abdominal x-ray film demonstrating diffuse gaseous distension of small bowels.

cm 5 cm 15

가

가 12 mm

가

5 mm

Hematoxylin-eosin

CMV

(intranuclear inclusion

body)가

(Fig. 3).



Fig. 2. Abdominal CT scan demonstrating inflammatory wall thickening and luminal narrowing of terminal ileum (arrow) with dilatation of small bowels.

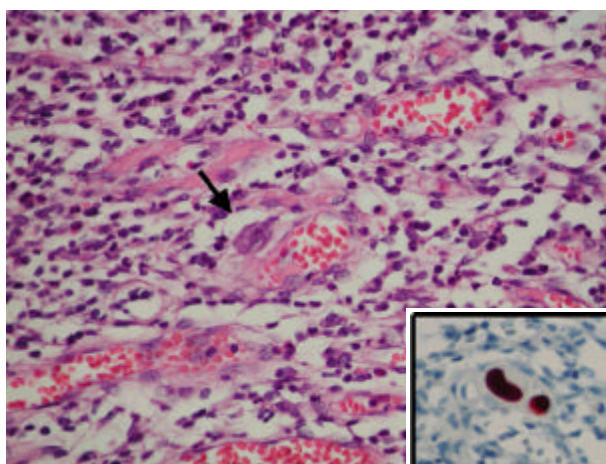


Fig. 3. The cytomegalic intranuclear inclusion in an endothelial cell (arrow) of granulation tissue. It is eosinophilic, sharply demarcated, and has clear halo (H-E, 400). Inset shows intranuclear inclusions high-lighted by immunohistochemical stain for CMV antigen (CMV immunohistochemistry, 400).

가 . CMV (3,5,11)
 IE E (Zymed Laborato-
 ries, SanFrancisco) 가 CMV
 CMV CMV가 가
 CMV CMV (3,5,11)
 CMV 6,323 (12)
 (9/ 1,000) CMV 가 54
 , 17 37
 CMV CMV
 CMV CMV가
 IgG CMV IgM CMV가
 CMV 가 CMV 가
 CMV CMV
 (3,5-8) CMV 가 CMV (3,6,12)
 (10) 1 HIV CMV가 가,
 가 CMV 가
 CMV CMV
 (3) CMV
 CMV 가 가 CMV
 CMV CMV 가 (3,5,6)
 (cytopathic effect) 25 35 μm CMV 가 가
 Cowdry body ‘ (3,5,6) CMV 12, 14) CMV 가 가
 (clear halo) (owl's eye)' (15) CMV가
 가 가 CMV (permissive lytic
 CMV
 (3, 11, 12) CMV 가 가
 가 CMV (15-17)
 CMV CMV
 CMV DNA in-situ hybridization polymerase chain
 reaction, CMV 10% CMV
 (3,5-7) CMV

23 8 , 15
12 1
(18)
CMV
(3,5-7) 가
93 CMV
17 가 2
(7) CMV
(7,9,19-24)
가
1970 70% CMV
gancyclovir
foscarnet CMV
CMV
gancyclovir 가
가 (3,5,6)
20 CMV
3
CMV

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