



A Rare Cause of Acute Colonic Pseudo-obstruction: Ogilvie's Syndrome Caused by Herpes Zoster

TO THE EDITOR: Acute colonic pseudo-obstruction (ACPO, also called Ogilvie's syndrome) is a rare disorder characterized by colonic dilatation in the absence of a mechanical cause.¹ Although ACPO is an important cause of morbidity and mortality, the pathophysiology is not completely understood. Predisposing factors for ACPO are non-operative trauma, infection (pneumonia and sepsis), cardiac disease (myocardial infarction and heart failure), obstetric/gynecological abdominal/pelvic surgery, neurological disorders (Parkinson's disease, spinal cord injury, multiple sclerosis, and Alzheimer's disease), orthopedic surgery, and various other medical and surgical conditions.²

We recently experienced a rare case of ACPO caused by herpes zoster. A 75-year-old female was admitted for right back pain for 4 days. She also complained of a sudden onset of constipation with abdominal distension and discomfort. Physical examination revealed erythematous vesicles involving the right L4 dermatome and marked abdominal distension without tenderness (Fig. 1). Laboratory test results showed no overwhelming abnormalities except sodium 132 (normal: 136-147) mEq/L, chloride 97 (normal: 98-110) mEq/L, and C-reactive protein 1.76 (normal: 0.0-0.3) mg/dL. Abdominal radiography showed diffuse colonic dilatation (Fig. 2A and 2B), however abdominopelvic computed tomography revealed no definite obstructive lesion in the colon. ACPO associated with herpes zoster was diagnosed. There was no underlying

disease that could cause ACPO. She was treated with intravenous fluids, oral valaciclovir, bisacodyl, and polyethylene glycol. After 3 days, she had a small bowel movement with gas passing. However, colonic dilatation was still present. Her bowel symptoms gradually improved after conservative management and the colonic dilatation disappeared after 10 days (Fig. 2C and 2D).

Herpes zoster mainly involves the sensory neurons. However, motor nerve involvement occurs in about 5% of cases, resulting in diaphragmatic and bladder paralysis.³ Unilateral abdominal wall paralysis due to motor nerve involvement by herpes has rarely been reported.⁴ Gastrointestinal manifestations of herpes zoster such as colonic pseudo-obstruction and gastroparesis are extremely rare. The mechanism of colonic pseudo-obstruction in herpes zoster is not known. However, extrinsic autonomic or motor neuron involvement has been suggested.⁵ In addition, direct invasion of the intestinal muscularis propria and myenteric plexus by varicella-zoster virus was reported in an HIV-positive patient with Burkitt lymphoma.⁵ The interval between onset of the herpes zoster rash and bowel symptom in patients with zoster-associated ACPO is variable. A literature review reported that rashes developed 1 day to several weeks after bowel symptom onset in 48%, 2 days to 1 month before bowel symptom onset in 28%, and simultaneously in 24%.⁶

Zoster is not uncommon and is generally self-limited. However, it is a rare cause of ACPO, which has a high mortality rate if isch-

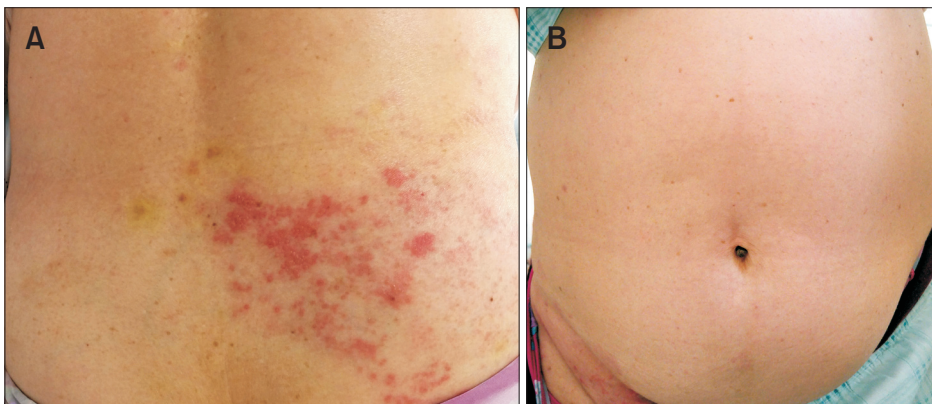


Figure 1. Physical examination. (A) Vesicular eruptions involving the right L4 dermatome and (B) marked abdominal distension were noted.

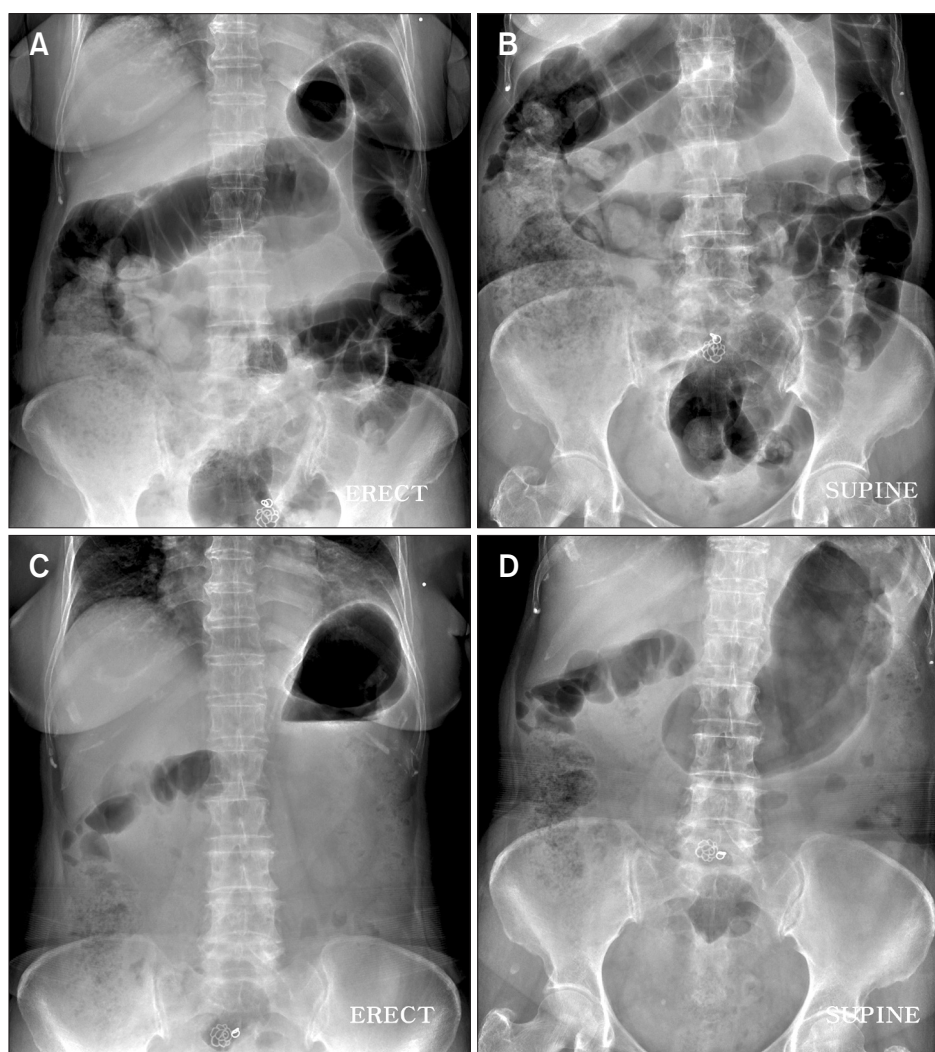


Figure 2. Radiographic findings. (A, B) Abdominal X-ray on admission shows diffuse colonic dilatation. (C, D) Colonic dilatation disappears after 10 days of conservative management.

emia or perforation occurs. Therefore, early recognition and appropriate management of unusual gastrointestinal presentations such as ACPO in patients with zoster is important to prevent potential serious outcomes.

Jae Yoon Chung,¹ Jong Seol Park,² and Yong Sung Kim²

¹Department of Anesthesiology, Wonkwang University Sanbon Hospital, Gunpo, Gyeonggi-do, Korea; and ²Department of Internal Medicine and Wonkwang Digestive Disease Research Institute, Wonkwang University Sanbon Hospital, Gunpo, Gyeonggi-do, Korea

1. Saunders MD, Kimmey MB. Systematic review: acute colonic pseudo-obstruction. *Aliment Pharmacol Ther* 2005;22:917-925.
2. Vanek VW, Al-Salti M. Acute pseudo-obstruction of the colon (Ogilvie's syndrome). An analysis of 400 cases. *Dis Colon Rectum* 1986;29:203-210.
3. Jellinek EH, Tulloch WS. Herpes zoster with dysfunction of bladder and anus. *Lancet* 1976;2:1219-1222.
4. Chernev I, Dado DN. Segmental zoster abdominal paresis/paralysis, zoster pseudo-hernia or zoster lumbar hernia? *Hernia* 2014;18:145-146.

ter pseudo-hernia or zoster lumbar hernia? *Hernia* 2014;18:145-146.

5. Pui JC, Furth EE, Minda J, Montone KT. Demonstration of varicella-zoster virus infection in the muscularis propria and myenteric plexi of the colon in an HIV-positive patient with herpes zoster and small bowel pseudo-obstruction (Ogilvie's syndrome). *Am J Gastroenterol* 2001;96:1627-1630.
6. Edelman DA, Antaki F, Basson MD, Salwen WA, Gruber SA, Losanoff JE. Ogilvie syndrome and herpes zoster: case report and review of the literature. *J Emerg Med* 2010;39:696-700.

Financial support: This work was supported by Wonkwang University 2017 (Jae Yoon Chung).

Conflicts of interest: None.

Author contributions: Concept: Jae Yoon Chung and Yong Sung Kim; data collection and/or processing: Jae Yoon Chung and Jong Seol Park; analysis and/or interpretation, literature search, and writing: Jae Yoon Chung, Jong Seol Park, and Yong Sung Kim; and critical review: Yong Sung Kim.