

A rare case of severe gastroenteritis caused by non-O1/O139 *Vibrio cholerae*

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Introduction: *Vibrio cholerae* has approximately 200 serotypes classified into O1, O139 and non-O1/O139. Non-O1/O139 *V. cholerae* are usually non-pathogenic and do not cause cholera. We describe a case of severe gastroenteritis caused by non-O1/O139 *V. cholerae*. **Case:** A 76-year-old man admitted to our emergency department with diarrhea and a loss of consciousness. On his past history, he had hypertension and diabetes mellitus. Diarrhea started one day before admission. He had about 30 times of watery diarrhea associated with nausea, vomiting and abdominal pain. He was discovered unconscious in the bathroom. His wife reported that they had raw fish and squid 4 days before the admission. She did not have any symptoms. On admission, he had a blood pressure of 68/58 mmHg, a heart rate of 110 /min, a respiration rate of 24 /min, and body temperature of 35.9°C. Mental status was coma. Tongue and lips were dry. Skin turgor decreased and bowel sound was hyperactive. On laboratory tests, complete blood test showed white blood cell count of 20,000/mm³ (neutrophil 86.1%), hemoglobin of 16.0 g/dL, and platelet count of 350,000/mm³. Biochemical analysis showed as follows: Na+143 mmol/L, K+ 3.4 mmol/L, BUN 34.5 mg/dL, creatinine 4.14 mg/dL, C-reactive protein 0.5 mg/dL. Arterial blood gas showed pH 7.03, pO₂ 89 mmHg, pCO₂ 24.9 mmHg, HCO₃ 6.6 mmol/L and SaO₂ 94%. On a chest X-ray and computed tomography scan, pulmonary consolidation was seen at both lungs (figure 1). He was transferred to intensive care unit after intubation. Fluid resuscitation was done for hypovolemic and septic shock, and acute kidney injury. Piperacillin/tazobactam and metronidazole were given empirically. The diarrhea was 5~12L per day (table 1). Because of the potential of cholera, he was isolated and doxycycline (300mg one time) was added. On hospital day 2, his mental status was recovered and he got extubated. In the sputum and stool culture, non-O1/O139 *V. cholerae* was identified. After 5 days, diarrhea stopped and the renal function was recovered. On hospital day 13, he discharged without any complication. **Conclusion:** We present a case of severe gastroenteritis caused by non-O1/O139 *V. cholerae*.

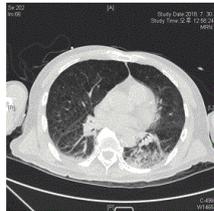


Figure 1. Pulmonary consolidation was seen at both lower lobe on computed tomography.

Hospital day	Diarrhea (mL)	Urine output (mL)	Intravenous fluids (mL)
1	5,540	150	7,400
2	12,000	1,285	17,290
3	9,844	2,100	15,347
4	10,100	4,240	15,635
5	6,120	8,960	14,957
6	2,927	9,240	13,335
7	1,717	9,420	9,485
8	170	8,460	9,245
9	0	2,870	1,985
10	0	2,830	1,135