

Consumption of Raw Oysters and *Vibrio Vulnificus* Sepsis

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Abstract

We present the case and images of a 52 year-old Hispanic gentleman with a history of hepatitis C and chronic liver disease that developed *Vibrio*

vulnificus sepsis secondary to eating raw oysters. His course was complicated by necrotizing fasciitis in the upper extremities and renal failure..

Key words: Bullous skin lesion, gram-negative sepsis, *Vibrio*

Case presentation

A 52 year-old Hispanic gentleman with a history of hepatitis C, cirrhosis, and cardiomyopathy presented to the emergency department with extreme weakness and bullous lesions over both upper extremities. The patient gave a history of eating raw oysters in a restaurant 2 days prior to his presentation. On examination he was in obvious distress but denied any fever, chills, chest pain, nausea or vomiting. Clinical findings included a systolic blood pressure of 70 mmHg, heart rate 145/minute, and temperature 99°F. The skin possessed extensive erythematous bullous lesions on both upper extremities from the hand to elbow region (**Figures 1 and 2**). The remainder of the physical examination was unremarkable. Laboratory data revealed WBC 8.6×10^3 per mm^3 , hemoglobin 11.5 g/dL, hematocrit 34.1% and platelet count $30,000/\text{mm}^3$. Sodium was 128 mEq/L, potassium 5.8 mEq/L, BUN was 67 mg/dL, and creatinine 3.5 mg/dL. The patient was started on antibiotics with doxycycline and ceftazidime for *Vibrio vulnificus* coverage. After volume resuscitation

with crystalloids, vasopressors were added to support his blood pressure. Culture of the bullous fluid revealed *Vibrio vulnificus*. The patient's upper extremities exhibited signs of necrotizing fasciitis for which he underwent surgical debridement. Renal function, blood pressure and fasciitis improved over time and the patient was discharged home in stable condition.

Discussion

Hippocrates gave the first documented description of *Vibrio vulnificus* when he described a patient who was a fisherman, fishing in sea water presenting with violent pain in his foot which was accompanied by fever, delirium, and black blisters on his skin. *Vibrio vulnificus* is a gram-negative, motile, curved bacterium that is part of the vibrio genus and the Vibrionaceae family. It is common in warm seawater and thrives in water temperature greater than 68°. Approximately 25% of infections are caused by direct exposure of an open wound to warm sea water containing the organism. This infection is extremely invasive and even with prompt diagnosis and aggressive therapy carries a mortality of 30-40%. Risk factors for the infection include immunocompromised status, especially alcoholic liver disease, hepatitis B or C. There have been few documented case reports in the past of *Vibrio vulnificus* infection in an at risk population contracted by eating raw oysters or shell fish (such as this patient).

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Figure 1. BULLOUS LESIONS IN THE RIGHT UPPER EXTREMITY



Figure 2. BULLOUS ERYTHEMATOUS LESIONS WITH EDEMA

