Vibrio vulnificus Infection

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A 59-year-old man, who was unable to walk, was brought to the emergency department with severe leg pain, worsening weakness, increasing fatigue, chills, and fever of 3 days' duration. The symptoms began after a round of golf. In addition to the leg pain, which particularly affected the calf muscles, the lower extremities were red and swollen. Dr Kelley Myers of Harlingen, Tex, asked the patient about his diet, recent insect bites, and chemical exposures. The patient, whose occupation brought him in contact with environmental molds, said that he had eaten raw oysters 5 days earlier; he denied insect bites and exposure to chemicals (A). The patient's history included type 2 diabetes mellitus, which had been diagnosed 3 months earlier; hypertension; mild cirrhosis; kidney stones; and bladder cancer. He was taking a combination glyburide and metformin, 1.25/250 mg/d; aspirin, 81 mg/d; and vitamin E, 400 U/d. The patient drank 2 alcoholic beverages daily. He did not smoke cigarettes. The patient was admitted to the hospital, cultures were obtained, and intravenous cefazolin was initiated for presumed bilateral lower extremity cellulitis. Six hours later, the patient became lethargic and hypotensive (blood pressure, 80/60 mm Hg); he was transferred to the ICU, where the antibiotic regimen was changed to an imipenem and cilastatin preparation and vancomycin. The patient continued to complain of increasing pain below both knees and some pain in the thighs bilaterally (B). The white blood cell count was 10,600/µL; bands, 54%; platelet count, 97,000/µL. A chest film and the urinalysis were normal. Gram-negative rods were found in 2 blood cultures. Because murine typhus is endemic to south Texas, intravenous doxycycline was added to the antibiotic regimen and intravenous fluids were given. Mild clinical improvement was noted within 4 hours; the patient's blood pressure rose to 130/80 mm Hg, and his mental status improved. Twenty-four hours after admission, patches of ecchymoses with large bullae and some skin necrosis with sloughing developed on the posterior calves. Both blood cultures were identified as Vibrio vulnificus, a bacterium found in raw seafood. The patient's wounds were aggressively debrided. Doxycycline was continued; the other antibiotics in the regimen were changed to intravenous ciprofloxacin and ceftriaxone (C and D). The department of public health was notified to investigate the restaurant that served the raw oysters. In the United States, V vulnificus infections are most common along the Gulf Coast. Typically, men older than 40 years with a history of liver disease are affected. Most of the patients have ingested raw oysters within 2 days prior to symptom onset. Generally, erythematous patches arise on the lower legs and progress to necrotic, sloughing lesions. Prompt diagnosis and treatment with doxycycline or tetracycline and aggressive surgical debridement are critical; close to 50% of patients die of sepsis. This patient was transferred out of the ICU after 4 days. Daily wound care, diuresis, and physical therapy were continued in the hospital for 2 more weeks. The patient had no sequelae; he returned to work 2 months after the onset of symptoms.

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